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SELF-ACTUALIZATION AND THE UTILIZATION OF TALENT.
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THIS STUDY ATTEMPTED (1) TO DEVELOP A THEORY OF THE CAUSES AND CONSEQUENCES OF SELF-ACTUALIZATION AS RELATED TO THE UTILIZATION OF TALENT, (2) TO FIT THE THEORY TO EXISTING DATA, AND (3) TO PLAN ONE OR MORE RESEARCH PROJECTS TO TEST THE THEORY. TWO ARTICLES ON IDENTITY AND MOTIVATION AND SELF-ACTUALIZATION AND SELF-IDENTITY THEORY REPORTED THE RESULTS OF THE WORK ON GENERAL THEORY WHICH INVOLVED--(1) SEARCH OF THE LITERATURE AND PRODUCTION OF SUMMARIES OF THE MOST RELEVANT MATERIAL, (2) CONFERENCES, AND (3) MEETINGS OF RESEARCH TEAMS TO REFINE SPECIFIC HYPOTHESES FOR RESEARCH PROPOSALS. IN FITTING THE THEORY TO EXISTING DATA, THE INVESTIGATORS ANALYZED DATA FROM A PILOT PROJECT ON INDUSTRIAL SUPERVISORS AND ANOTHER PILOT PROJECT ON METHODS OF TRAINING SELF-IDENTITY AND SELF-ACTUALIZATION. THE MAJOR FINDINGS SUPPORTED THE HYPOTHESIS THAT INCREASES IN COMMUNICATED OBJECTIVE PUBLIC IDENTITY WILL PRODUCE INCREASING CHANGES IN SELF-IDENTITY. FOUR PROPOSED RESEARCH PROJECTS WERE DESCRIBED--(1) STUDY OF THE EFFECT WHICH THE FIT BETWEEN A MAN AND HIS JOB MAY HAVE ON SELECTED ASPECTS OF HIS HEALTH, (2) STUDY OF RELATIONSHIPS BETWEEN OVERLOAD AND UNDER-UTILIZATION, HEALTH AND HEALTH BEHAVIOR, AND SERUM URIC ACID IN 120 MEN FROM LOWER MANAGERIAL POSITIONS, (3) STUDY OF RELATIONSHIPS BETWEEN TRAINEE FACTORS AND SUCCESSFUL UTILIZATION OF TRAINING ON THE JOB TO ASSIST IN EVALUATION OF TRAINING PROGRAMS, AND (4) STUDY OF THE LEVEL OF CHANGE IN A TRAINING GROUP AND ITS LATER APPLICATION IN THE ORGANIZATION. (JM)

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Self- Actualization and the Utilization of Talent

Cooperative Research Project No. E-006

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The objectives of this Research Development Activity were: (1) to develop further a theory of the causes and consequences of self-actualization as related to the utilization of talent, (2) to fit the theory to such existing data as could be found, and (3) to plan one or more research projects to test the theory. The accomplishment of each of these three objectives is summarized below and then documented in detail in the six appendices which follow.

Theoretical Development. The procedures for accomplishing this objective included: (1) a search of the literature and the production of written summaries of the most relevant material, (2) conferences for the discussion of general theory including review of the written summaries and of working papers produced by members, (3) meetings of research teams to refine specific hypotheses for research proposals. The results of the work on general theory are reported in two manuscripts of articles for publication. The first one by French and Miller, entitled "Identity and Motivation," is presented in the first appendix. The second one by French and Sherwood, entitled "Self-Actualization and Self Identity Theory," is presented in the second appendix. The more specific work on hypotheses is reported in a proposal for a Ph. D. thesis and in the proposals presented in the last four appendices.

Fitting the Theory to Existing Data. Two activities helped to accomplish this objective. First, the review of the literature included findings by others; and these findings are cited in the articles and proposals in the appendices. Second, our own data from two pilot projects were analyzed. In one project, we examined the relations among education, promotion, status and health in a group of industrial supervisors. This analysis formed the basis for the proposal presented in the fourth appendix. In another project we tested the effects of four different methods of training on self-identity and self-actualization. The major findings supported the hypothesis that increases in communicated objective public identity will produce increasing changes in self-identity.

Research Planning. In addition to the pilot projects and theoretical work described above, the planning involved finding possible research sites, investigating the feasibility of research at these sites, negotiating with the organizations involved, and writing suitable research proposals. The end-products of these activities are the research proposals presented in the last four appendices.

IDENTITY AND MOTIVATION

BY

John R. P. French, Jr. and Daniel R. Miller

(Preliminary Version)

IDENTITY AND MOTIVATION

Observation of the average person's preoccupation with selves--his and others--makes it clear that the evaluation of self is one of the strongest social motivators. Few social conversations are lacking in the evaluation of someone's self. Many people are so fascinated with themselves that they find it difficult to concentrate on other topics for any length of time. Reflecting this common concern, much of the popular literature addresses itself to such questions as: Who am I? What will the neighbors think of me if I do so-and-so? Why don't I feel like a person my age is supposed to feel? and What is the purpose of my life? A venerable tradition in philosophy as well as literature, the study of self, which can be traced back to the Greeks, became a part of social science through the influence of William James.

Many an eminent social scientist has emphasized the significance of self for some facet of man's behavior. Noting the universality of the pronouns "I," "thou," and "he," Boas (1938) observes that they provide a necessary condition of action by helping man to distinguish between himself, the person addressed, and the object of the conversation. Obviously, such distinctions would not be possible if the conception of oneself were unclear. Postulating a motive to clarify the picture of oneself, MacLeod (1947), too claims that self-perception is a required point of reference for the meaningful perception of objects and of action. Impressed with the extent to which the identity of the self is maintained in various situations, Redfield (1952) describes it as the axis of a world view in which events are categorized in terms of self and nonself.

It is the students of social interaction who have given the greatest prominence to the concept of self. Like Cooley (1922) and Mead (1956) Cottrell (1942) thinks that the understanding of social interaction requires that it be viewed in a context of interacting selves; a context in which each person is aware of himself and the other, each evaluates the adequacy of the behavior of both, each tries to determine the other's judgments, and the action of each is motivated by his information about these judgments and his goal of maintaining adequate levels of respect for himself and the other.

In addition to his desire to maintain his own esteem and that of others, a man is also motivated to evaluate the selves of others because, as a member of a group, he has a vested interest in the extent to which other members meet their responsibilities--which in some cases entail the honoring of his rights. He also wants them to meet their responsibilities because this enhances the group's welfare.

Each member is motivated to meet the group's norms because its evaluations furnish the basis for its subsequent reactions to him. An even more potent pressure to behave in congruence with the norms is created by his internalization of the norms, which he then applies to himself even in the absence of observers. Hallowell (1955) feels that a definition of the self which includes such norms is necessary to facilitate relationships in a given society, and Wallace (1956) thinks that the operation of a social system depends in great part on this ability of people to act autonomously.

Despite their agreement about the significance of self, a surprisingly small number of social scientists have written theoretical papers on the topic. It was virtually neglected for many years as a subject of empirical inquiry. It was not until Allport's article (1943) that the trickle of publications increased to its current modest size. We imagine that the positivistic aversion to the study of perceptual experience accounts for much of the reluctance to investigate the nature of self.

There is still little theoretical order in the field. In fact, specialists disagree about the meaning of self (Hall and Lindzey, 1957). Some writers, the present ones among them, conceive of it as an object of perception; others regard it as an integrating agent of action. An examination of the literature reveals many fruitful but fragmentary theoretical suggestions, many of which are intuitive and very general. Such fragments, like potshards, tempt one to assemble them and to fill in the gaps so one can visualize the structure of the object. The potential richness of the theory is suggested by the success of some of the few attempts to integrate some of the parts, such as the pioneering works of Cooley (1922) and Mead (1956), Sullivan's (1949) explorations of the self and anxiety, Schilder's studies of body image, Rogers' (1959) research on the changes of self in psychotherapy, and Goffman's (1959) speculations on the presentation of self. It is to the goals of classification and theory that this paper is addressed. Where possible, we concentrate on the relevance of the principles we develop to social structure and to individual motivation.

It is easier to decide on dimensions for classifying potshards than to do the same for the components of self. One must begin by deciding on the nature, or at least the limits, of the total structure.

Some of the literature uses self as a unitary concept which, while admittedly complex, refers to an object that can be identified without much difficulty. Further reading reveals, however, that the word "self" is typically applied to a plethora of concepts which have not been sufficiently distinguished one from the other. Just a few examples are the good and bad self (Sullivan, 1949), the presented self (Goffman, 1959), the unconscious self (Hilgard, 1944), the core self (Symonds, 1951), the social self (James, 1890), and the actualized self (Maslow, 1956).

We must begin at the beginning. Following some of the principles described in previous publications (Miller, 1960) (French and Kahn, 1962), we review some of the primary characteristics of what we shall call the total *self-identity*, which is a person's conception of himself. It is a conception originally defined by the judgments of others, who continue to influence it throughout the person's life. The introduction is followed by a section on basic concepts, following which we describe some principles pertaining to the origins and dynamics of esteem, to self-actualization, and which relate social structure to the theory of self and to motivation.

Identity and Society

Members of social group are said to establish the identity of an animate or inanimate object when they identify it or recognize it as being the same object over a period of time. To a considerable extent, the object is conceived in terms of attributes most relevant to the goals and norms of the group. Functional attributes are usually chosen in preferance to others.

Concerned as it is with the functional adequacy of its possessions, a group is even more concerned with the functional adequacy of its members. One object that is identified in every society is the self of each person. In judging the adequacy of each person's self, the group places a differential stress on his various attributes depending on their relevance to primary norms. The ability to implement virtually all norms is affected by certain types of attributes, which tend to be the ones mentioned most often in definitions of self. For us, the key attributes are those pertaining to control and responsibility. Every person is conscious of a "central, active self" with "executive control" of "my" actions (Murphy, 1947). Others too regard him as a person who has intentions and engages in deliberate actions. To be a good member he must use the control in the service of his responsibilities. Subsumed under this term are such attributes as values, capacities and effort. Each member is keenly aware of the ways in which the others are meeting their responsibilities, since this affects the welfare of all members individually as well as the group as a whole.

Probably related to control and responsibility is the body image, the attributes of which have been interpreted as reflections of the individual's primary concerns and conflicts in his relationships with others (Schilder, 1950). Some other kinds of attributes which are typically experienced as part of the self, and usually bear on the person's adjustment to the group, are his skills, his success in developing his potentialities, and such socially significant attributes as the ones pertaining to race, religion, and other social categories.

Within a very short time, a group develops a detailed picture of each member consisting of the kinds of attributes just listed. The ways in which the group evaluates his unique pattern of attributes determine their over-all evaluation of him. Because their esteem for him affects their reactions, it is not difficult for him to estimate their evaluations. If he is at all involved in the group, he ultimately comes to judge himself in the same way as he is judged by the others whose esteem he values: "...the individual experiences himself...indirectly from the standpoints of the individual members...or from the general standpoint of the social group as a whole...." (Mead, 1956, p. 215). In explaining the "looking-glass self," Cooley postulates the sequence: "...the imagination of our appearance to the other person, the imagination of his judgment of that appearance, and some sort of self-feeling, such as pride or mortification." (Cooley, 1922, p. 183).

Such statements presume a universal pressure and motivation to act in a manner that raises one in the esteem of others. The anxiety about esteem is probably stimulated by such factors as one's need to be liked by others, the contributions one's actions make to the welfare of the group, the variations in self-confidence with one's performances, and the practical advantages which can be gained by capitalizing on the good will of others. Other writers who have been impressed by this pressure to increase the public's esteem and the related self-esteem are McDougall (   ), for whom "self-regard" is a major "sentiment," Rogers (1959), who uses positive self-regard as a criterion for measuring gains in therapy, Hallowell (1955), who claims that positive self-evaluation is the keystone to a man's characteristic motivation, and Sullivan (1949), who notes that changes in self-evaluation elicit anxiety because they break down one's established patterns of relating with others.

The motive to maximize one's esteem in the eyes of the public or oneself is reflected in a number of different fields of research. It presumably underlies the common tendency to describe one's traits in the best possible light, and is involved in the considerable literature on the control of social desirability in responses to tests. Investigations have also been made of the presumed associations between the maintenance of esteem and such varied phenomena as perceptual distortions, the arousal of shame and guilt, the etiology of depression and obsessive compulsive neurosis, identification, and various group phenomena.

Before proceeding to the basic terms, we consider it necessary to list some assumptions underlying the definitions. First, we take it for granted that the way a man perceives his world influences his motives and behavior. By this we mean that the patriotic values and gods and ghosts of ancestors and remembered parents and mythical heroes are as real--can motivate action as profoundly--as the world of palpable objects.

As we view perception, it embraces more than is suggested by the phenomenologists. To explain some properties of the self, we find it useful to assume "unconscious perception," a term we apply to responses that the person cannot report, which the observer can infer from independent evidence such as GSR, and slips of the tongue, and which is predictably associated with specified behavior. It is obvious from this approach that we are not partial to the law of parsimony.

Finally, we assume that the understanding of the influence on behavior of the self requires that it be studied in an interpersonal context. It is the interacting selves which provide the primary points of reference of an organized perceptual field (MacLeod, 1947). In our speculations we concentrate on the influence of social structure on the individual. Hence, we study associations such as those between the group's organization and its evaluation of members, between its communications and the person's picture of its evaluations, or between its evaluations and the person's self-esteem.

Terminology

Types of Identity

We classify the different types of identity in terms of the perceiver and the object being identified. When the perceiver is observing himself, we add the term "subjective" to the title; otherwise we call it "objective." Our terms thus include the person's objective public identity, how he is really perceived by his group; the communicated objective public identity, what they convey to him of their impressions; the subjective public identity, his perception of how the group pictures him; and his self-identity, his picture of his own attributes. We employ a parallel set of terms to describe the different evaluations of a person's attributes. His objective public esteem describes the location his group gives him on the dimension of esteem. There are also a communicated public esteem, a subjective public esteem, and a self-esteem.*

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* We also find it useful to conceive of a parallel set of terms for the group's identity and esteem, but we will not discuss this nomenclature here since we do not employ it in our discussion of theory.

Some of our reasons for proposing this proliferation of concepts in the place of the blanket term "self" emerge when we consider some of the research on the topic. "Who are you?" is a typical question asked to elicit descriptions of self. But, which "you"? Should a subject describe his private picture of what he is really like? What he fears he is like? His ideal self? His bad self? How he is pictured by others? If so, which others? And what about the inconsistencies in the ways he thinks of himself at different times? We could go on listing more questions, but we think we have given enough examples to illustrate the necessity of distinguishing not only the concepts we have already labeled but still others. There are quite a number of selves, and they have independent meanings, are elicited in different situations, and have different motivational consequences.

Analytical Terms.

Thus far we have referred only to total selves. To describe some of their structural components, we require further analytical terms. In thinking about an individual's public identity, members of his group divide it into socially significant attributes, such as height, or wealth, or intelligence. An attribute is a basic cognitive unit, which refers to a quality ascribed to an object.

Social groups typically define attributes with respect to single dimensions. We shall regard a dimension as a set of alternative possible attributes which are treated by a group as constituting a roughly linear scale, and which vary in degree of reference to a common core of meaning. In terms of its degree of reference, the attribute is assigned a location on the dimension. An attribute of self-identity is the location a person assigns to himself on a single dimension. A total identity may be analyzed in terms of all the component attributes at a point in time.

Research on dimensions and attributes requires analyses of a number of their properties. One is the content, which refers to the common core of meaning. Variation of attributes on the dimension may constitute a nominal, ordinal, ordered metric, equal interval, or ratio scale. While the content can be abstracted from the meaning of an attribute, it is seldom separable conceptually from value: the word "cowardice," for example, connotes both a low location on a scale of courage and devaluation of the attribute. It is interesting to note parenthetically that values have the highest loadings in Osgood's ( ) factor analysis of attributes.

As used here, value refers roughly to a conception of the desirable or undesirable which can motivate action. We will elaborate on the concept of value later.

The distribution of values associated with a dimension of attributes always involves some thresholds which divide it into segments. Some contain ideal attributes, some contain acceptable ones, and some contain disapproved ones.

As Simmel ( ) observed, the dimensions in common social use tend to be bipolar, the two extreme ends having opposite or complementary meanings.

The attributes of a dimension vary, then, with respect to degree of reference to a common core of meaning and to their evaluation. The value associated with a particular attribute is determined in great part by the norms of social groups, and can change with exposure to other norms and with experience that contradicts the value.

Two attributes that have been evaluated in the same way can differ considerably in their motivational impact because one is less salient for the group than the other and is therefore given less weight in their estimation of a member's public esteem. Salience refers to the weighting of an attribute or dimension in light of the group's primary norms and goals. It seems safe to assume that the more salient an attribute, the greater the reinforcements it elicits, the stronger is the pressure that the group exerts on a person with a socially unacceptable attribute, and the greater are the rewards bestowed on a person with a valued attribute.

Just as the group ranks dimensions of attributes in terms of salience, the individual ranks them in terms of relevance to the self-identity. The relevance of an attribute is defined as its importance or characteristicness or perceptual prominence in his self-identity. The greater the relevance of a dimension, the greater is its effect on self-esteem, and the greater the effort to attain an acceptable location on that dimension.

We shall refer here to only one further characteristic which we have found useful in analyzing identity.* Generality refers to the number of different component parts of an identity (We shall refer to them as subidentities.) in which the attribute or dimension may be found. Obviously the larger the number, the more representative of the total identity is the attribute, or the closer is its approximation to what we shall call the core of the identity.

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* Others which we do not discuss in this paper are centrality, the degree of interdependence between one dimension and others; clarity, the range of confidence with which an attribute can be located on a dimension; and differentiation, the number of distinguishable attributes on a dimension.

Structure of Identity.

Self-Actualization. In the study of self-actualization, we divide the total identity into the actual, potential, aspired, and ideal selves. The actual self is the total pattern of attributes in terms of which the person perceives himself at a given moment in time; the potential self is the total pattern he might attain if he developed his latent capacities to their fullest; the aspired self is the total pattern he perceives himself as attempting to attain; the ideal self is the total pattern he would impute to himself were he to realize his ideals.

There are two types of self-actualization. Self-utilization is the discrepancy, at a particular time, between a person's location on a dimension and the level that characterizes his typical performance. Self-development is represented by the discrepancy between actual and potential selves. We assume that public recognition prompts people to increase their self-utilization, and that changes in development and utilization of self-identity are directly related to shifts in self-esteem. We also assume that shifts in self-utilization produce those changes in relevance, effort, and definitions of values that maintain levels of self-esteem at their maximum. If self-utilization on a dimension decreases, for example, it is possible to keep the level of self-esteem from decreasing by deemphasizing it in one's definition of relevance, by putting forth greater effort to improve utilization, or by changing one's values on the dimension.

Component Structural Parts. The total identity can be divided into three structural parts, the core, the subidentities, and the persona. We employ the term core for the cluster of attributes which are usually formed earliest, are most general, and are the most difficult to change.

Analogous to core is James' (   ) "truest, strongest, deepest self" and Dai's (   ) "primary self," which is acquired early in life, delimits the definitions of goals and behavior in secondary groups, sets in motion the basic self-defending and self-enhancing mechanisms, and is experienced as the major object of self-appraisal.

On the periphery of the structure of an identity is the cluster of attributes we designate as the persona (Jung,   ), which is like Goffman's "presented self" and is a compromise between the attributes of the actual self-identity and those of the ideal self-identity that are elicited by the pressures of the situation.

Between the periphery and the core are the subidentities (Miller, 1960), subdivisions of the total self-identity or public identity which are typically organized along the lines of the more significant roles. One may have subidentities as male, father, engineer, Negro, and so forth. Unlike a role, which we regard as a group of pressures that a person incurs by assuming the responsibility of a social position or by being in a social category, a subidentity is a cluster of the person's attributes. The role defines how he is expected to act; the subidentity is the pattern of his attributes. The division of the total identity into components permits the phrasing of hypotheses concerning the relationships among components: the fit of a man's role and his subidentity, the fit between his subidentities and his persona, and the fit between one of his subidentities and a parallel one of another person in the same social group.

Origins of Identity

Internalization.

Values have been defined as internalized norms. To us, the concept of internalization describes the results of extending one's conception of self to include attributes which were formerly parts of other objects. A man can extend his conception of himself to include such phenomena as his university, his son, his role, or the social category to which he belongs. The internalization can vary in degree, so that some new parts of the self can be more relevant and general than others.

Once an attribute or dimension or object has been internalized, the person reacts to it as he does to the rest of himself. If the extension of the self violates some of his values--if an organization he has joined is disclosed to have used unethical practices--he reacts with the guilt he might feel if the rest of him were responsible for the violation. Or, he resorts to perceptual distortions to avoid the pangs of conscience. One example of such a reaction is provided by the study (   ) of judgments by students of rules violations in a football game between Dartmouth and Princeton. The Dartmouth team had been accused of tactics aimed at incapacitating Princeton's star player. The predictable biases in interpretation were found in the newspapers of both schools and in students' retrospective accounts and even in tabulations of violations made by students while they were observing movies of the game. To the degree that the students at Dartmouth experienced their team as an extension of themselves, they either had to face their guilt or defend themselves against it by distorting what they saw--assuming that their team did act unethically.

Internalization typically occurs in the context of a relationship in which one of the members, or a group, has some power based on his capacity to reward or withdraw love from another. Let us consider the instance of a relationship between mother and son. In addition to power, a second condition required for internalization by the boy is a descrepancy between one or more of his attributes and her standards for him; she is dissatisfied with some part of him. A third condition is the assumption on her part that the attribute in question is subject to her son's control, so that he can be held responsible, if he gets her help, for changing in a manner that helps him to meet her standards. A fourth condition explains why he does change; the gains from the internalization exceed the losses. If a mother is intent on curbing the attacks of a three-year-old on his younger brother and she enforces her demands by punishing violations and bestowing love as a recognition of inhibited hostility, her son finally finds it rewarding to be the protective parent with his brother. The process probably involves a number of stages beginning with resistant conformity, proceeding to the playing of a parental role, continuing with the establishment of a subjective public identity as good parent, and ending in true internalization as part of the self-identity of the mother as she is perceived in a particular relationship. At that point, the boy judges his reconstituted self in terms of the norms originally imposed by his mother. Now they are self-imposed values. Having been the subject of internalization, the mother now can be described as having referent power over her son (French and Raven,). On his own, he uses her values as a frame of reference for determining his actions.

Of course, the degree of internalization and the content that is internalized varies with such factors as the kind of power exerted, the consistency with which it is applied, and the strengths of reinforcements.

Some Characteristics of Values.

The stronger the internalization, the more inclined a man is to judge himself and others in terms of a value and the more impelled he is to comport himself in a manner consistent with that value. With reference to motivation, a value can be measured in terms of strength, the maximal extent to which the person is impelled to act; arousal, the proportion of the strength that is elicited in a given situation; and content, the set of all acts, objects, identities, goals, and affects that can act as incentives when the motive is aroused.* A man may have stronger values about liberty than about taste in dress. Yet, in a given situation, the values about taste can be aroused more than the values about liberty: A father may be dressing for an important occasion and his child may be asking him questions about history.

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* We analyze content in terms of the range of applicable objects; ordering, the hierarchy of objects within specific dimensions; differentiation, the number of units within dimensions; and clarity, the range of confidence with shich one can identify specific locations of values within dimensions. With respect to content, values can be divided into types. There are moral values, for example, which are conceptions of the desirable and undesirable that have consequences for the total society or a large subgroup, and entail responsibility for action; economic values, which define the ultimate utility of different objects; and aesthetic values, which pertain to the standards of artistic excellence.

Origins of Motives to Maximize Esteem.

In his relationships with his parents, a child is constantly exposed to the evaluation of his actions. His parents are proud or ashamed, approving or disapproving, rewarding or punishing, irritated or soothed. It is not long before he applies the implications of these actions to his meanings as a boy, child, son, brother, or student, and becomes keenly aware of the valued and devalued attributes of these roles and subidentities. So pleasant are the consequences that follow from his parents' approval of one or more of his attributes that he becomes adept at enhancing and displaying them as a means of earning an even higher level of public esteem; so unpleasant are the consequences of parental disapproval of attributes that he becomes equally adept at hiding them and playing them down to avoid a lowering of public esteem. First, he learns the rules of the game. Then, after a period of playing the required roles, he finally internalizes the rules. He then applies them to himself and feels guilt or some other manifestation of low self-esteem when he violates them, whether or not anyone else knows about his violation.

The values that the child internalizes depend on such factors as his age grade, his stage of perceptual development, the nature of the parents' actions, the family's norms, and the salience of various attributes. Parents obviously have different standards for one age grade than for another. They expect the child to walk at one year and to read at six years. His stage of perceptual development is a key to his interpretation of events. Psychoanalytic theory is based on assumptions like the ones that the one-year-old experiences the mother's punishment as an oral sadistic attack while the five-year-old experiences the same behavior as castrating. Psychoanalytic theory also stresses the fact that children learn many lessons that the parents do not intend to teach. The child who is forced to wash his face regularly and without adequate explanation may learn that it is good to perform repetitive, meaningless acts because they win the love of the authorities.

What has been said thus far about the origins of the motive to maximize esteem can be summarized as follows: We begin with the assumption that a child is inclined to avoid punishment because it is associated with pain. When a mother punishes her son and labels an attribute as bad, the punishment, disapproved attribute, and low public esteem become associated, and he develops the parallel inclinations to avoid manifestations of the disapproved attribute and the communicated low public esteem. In other words, when a mother sends her son to his room because he made too much noise, he learns to avoid not only the forbidden act but also the unpleasant consequence of being labeled inadequate in her eyes.

We assume that a child is inclined to seek rewards because they are associated with pleasure. When his mother rewards him and labels an attribute as good, the reward, approved attribute, and high public esteem become associated, and he develops the parallel inclinations to enhance the approved attribute and to seek more public approval. In other words, if he does exceptionally well in school and his mother gives him special privileges and expresses pride, his motivation to do well in school and his interest in winning his mother's admiration are both increased.

The strength of the motive to maximize the subjective public esteem varies with a number of factors. One pertains to the nature of the reinforcement: whether it is positive or negative, how strong it is, how consistent it is. The stronger it is, for example, the more vividly it reinforces connections between the subjective public esteem and the child's affective state and the stronger is his inclination to maximize esteem; the greater the consistency, the clearer is the lesson to be learned and the stronger is the motive.

Other factors affecting the motive to maximize public esteem are the consistency of the family's norms, the clarity of their communicated objective public identity, and the extent to which they are organized to enforce their standards. The motive to maximize public esteem is not reinforced very much if the mother and father disagree about what is right, if they keep changing their minds, if they are unclear about their admonitions, or if they are seldom home and do not know when their child is engaging in approved or disapproved acts. The motive is strongly reinforced if the parents agree on their standards, if they are consistent, if they explain their discipline, and if they have enough contact with the boy to know how he is behaving.

To the extent that the relationship between parents and child meets the criteria that have been listed for internalization, he becomes concerned with engaging in the approved acts in order to maximize his self-esteem as well as his public esteem. Under ordinary conditions, both motives prompt him to engage in the same behavior, but if subjective public esteem becomes excessively low, he may defend himself by distorting the level or its causes. Normally, the greater his internalization, the more motivated he is to maximize self-esteem and the more ashamed or guilty he becomes when he violates some value connected with the self.

Most people ultimately relinquish their quest for maximal self-esteem in favor of attempts to optimize it. By this, we mean that aspirations that are unrealistically high lead to frequent failure and to low self-esteem. Aspirations that are so low that they are guaranteed to avoid failure also lead to low self-esteem because the resultant accomplishments are objectively unimpressive and so far below the person's potential that he is depressed by his low self-actualization. Aspirations that are established in the light of the actual probabilities have a good chance of yielding the highest achievements in the long run, and consequently the highest levels of self-esteem.

The Dynamics of Esteem

Having defined our basic concepts and described the processes by which self-identity develops within the individual, we are now in a position to utilize these concepts and ideas in examining the dynamics of esteem. We first examine the contemporary determinants of self-esteem, and of subjective public esteem, and then consider some of the adjustive mechanisms which an individual uses to assure a minimal level of self-esteem and to counteract possible threats to it. All of these adjustive behaviors can be derived from the basic assumptions we have made about self-esteem, but the formal derivation of these propositions will not be presented here.

Basic Assumptions Concerning the Determinants of the Level of Total Self-esteem.

We have already defined the evaluation of an attribute of self-identity and have indicated that the total self-esteem is some function of the evaluation attached to all of the attributes. This may be specified in the form of a basic assumption. Assumption 1: The level of total self-esteem is a direct function of the person's evaluations of his self-attributes, weighted by their generality. Some attributes weigh more heavily than others in determining a person's self-esteem; and this assumption uses the generality of a self-attribute as a weighting factor. The generality of an attribute or dimension is determined by the salience of the attribute or dimension to the various groups to which the person belongs or in which he has been socialized in the past. Accordingly, the level of self-esteem is intimately connected to both the origins of self-esteem in the individual and with his present group memberships.

Assumption 2 states: The level of total self-esteem is a direct function of the level of subjective public esteem for the various referent publics, with each of these publics weighted in accordance with its referent power. Although stated here in terms of total self-esteem, this assumption also holds for single attributes or dimensions. Provided there exists an attribute of subjective public identity which corresponds to an attribute of self-identity, then the evaluation of the former will affect the person's evaluation of the latter.

Following Festinger (1954), we assume that this dependence on social reality for the validation of one's self-evaluations is especially strong in the absence of any "physical reality." A person may validate an attribute of self-identity, for example his ability to lift a 100 lb. weight, by lifting the weight. But physical reality does not help him to judge the evaluation of his strength. Is his ability to lift 100 pounds good, bad, or indifferent? To answer this question, he has to ask others, or he has to compare his strength with the strengths of others of the same age and sex. Thus, the evaluation of an attribute is especially susceptible to social influence.

For any attribute several referent groups may be available; and Assumption 2 postulates that several or even all of them may be utilized in evaluating a single attribute. For evaluating total self-esteem, a large number of referent groups and individuals will usually be involved.

A third basic assumption, already developed above, concerns the motive to maximize self-esteem. Assumption 3: The level of total self-esteem is a direct function of the strength of the motive to maximize self-esteem. It is indeed plausible that the self-esteem motive will tend to raise the level of self-esteem; yet we are not at all confident in predicting a positive correlation because other factors may confound the relationship. For example, those with low self-esteem might have a stronger motive to raise self-esteem.

Determinants of the Level of Subjective Public Esteem.

Just as total self-esteem is composed of valued attributes weighted with respect to generality, so the level of total subjective public esteem is composed of valued attributes of the subjective public esteem, weighted by some factor representing its importance. In this case the weighting factor is the perceived salience of the attribute to the group. A man may perceive, for example, that his employer places great importance on his ability to perform the job properly, but is uninterested in any of his other attributes. This perceived salience reflects, with some degree of veridicality, the actual salience to the organization. In formal organizations there is often an explicit policy about the relative salience of members' attributes; and this policy may get translated into such systematic procedures as job evaluation and job requirements which specify the relative importance of various attributes of job occupants.

The level of subjective public esteem is also determined by the objective public esteem that is communicated to the person. This process may be stated in terms of two propositions: a. The level of total subjective public esteem is a direct function of the amount of communicated objective public esteem. b. The amount of communicated objective public esteem is a function of the amount of objective public esteem. Neither of these processes is simple. There are a variety of norms which serve as barriers to the accurate communication of objective public esteem. As the advertisers have conveyed, to their financial profit, even your best friend won't tell you that you have halitosis. Similar norms against denigrating others are widely shared in our culture. Since this is well understood by most people, communicated objective public evaluations tend to be reinterpreted by the recipient. Lavish praise, for example, is seen as "soft soap," and a refusal to make any evaluations may be interpreted as criticism.

Within any group or organization the objective public esteem tends to be clearly defined. There are strong pressures toward uniformity in evaluating members because the group or organization must reach sufficient agreement to act on its evaluations. For example, an organization must arrive at some salary system which is minimally acceptable to its members. Such common and shared scales for the evaluation of members constitute dimensions of status in the organization; and because they are strong and clear, they exert strong influences on subjective public esteem. Thus the social processes of status determination will have an important effect on the self-evaluations of members.

Finally, we hypothesize that the level of total subjective public esteem is a direct function of the strength of the motive to raise subjective public esteem.

Discrepancies Among Self-esteem and Subjective Public Esteem and Objective Public Esteem.

We have noted above several determinants of the level of self-esteem and of the level of subjective public esteem. These factors, of course, will influence the size and direction of the discrepancy between self-esteem and subjective pulic esteem. For example, we have assumed a self-esteem motive which tends to raise self-esteem; and the biasing effect of this motive should result in higher self-esteem than objective public esteem. That such discrepancies occur very frequently is indicated, in our study of occupational self-esteem, by the finding that only two out of ninety-two men reported that their performance was below the fiftieth percentile for those doing the same kind of work in the same company. Any objective evaluation would have placed nearly half of the ninety-two men below the fiftieth percentile.

In addition to the operation of factors specified above, a discrepancy between self-esteem and subjective public esteem is also a function of the degree of agreement among publics. If there are many relevant publics and very little agreement among them concerning their values or their actual evaluations of the persons, then total subjective public esteem is vague and unstable and thus subject to stronger distortion by the self-enhancing mechanisms. Under these conditions of disagreement we would expect smaller discrepancies between self-esteem and subjective public esteem.

Distortions of subjective public esteem are, of course, restrained somewhat by the realities of objective public esteem. An accurate perception of this reality is frequently reinforced, especially by the unpleasant consequences of over-estimating the esteem received from others. It is to the person's practical advantage, then, to keep a minimal discrepancy between objective and subjective levels of public esteem. As Burns expressed it,

> "Oh wad some power the giftie gie us
> To see oursels as others see us!
> It would frae monie a blunder free us,
> And foolish notion:"

Self-esteem and Adjustive Behaviors.

From the basic postulates stated above, we derive a number of propositions concerning the person's methods of satisfying his need for self-esteem and his reactions to possible threats to it. According to our first assumption, the level of total self-esteem is determined by the evaluation of each attribute weighted by the generality of that attribute. It follows that a person can change his total self-esteem by changing the generality of selected attributes. If an attribute is above the mean evaluation for all attributes of his self-identity, then an increase (or decrease) in the generality of that attribute increases (or decreases) his total self-evaluation. Conversely, if the evaluation of an attribute is average, a change in generality produces an opposite change in total self-esteem. Thus, a person can manipulate his self-esteem by the appropriate altering of the generality of good and bad attributes. In the extreme he employs defenses like denial and projection which reduce generality to zero, thus eliminating the attribute from the self.

Assumption 1 also leads to the conclusion that the strength of the tendency to over-value an attribute, a tendency which is induced by the motive to maximize self-esteem, is a direct function of the generality of the attribute. One would therefore expect more distortion in the most general attributes. Similarly the strength of the tendency to over-value an attribute of subjective public identity, which is induced by the motive to raise subjective public esteem, varies with the perceived salience of the attribute. The more salient the attribute to the group, the more inclined a member is to magnify their evaluation of it.

In discussing the development of self-identity, we have noted that as attributes increase in generality, becoming more important parts of the self, there is an increasing tendency for the person to behave accordingly. From past performance a person develops, for example, a self-concept as a good bridge player. The higher the generality of this attribute, the more strongly he is motivated to play bridge because this activity, according to Assumption 1, now contributes more to his self-esteem. More generally we can state as Assumption 4: The greater the generality of a good attribute, the stronger is the motivation toward the corresponding performance; the less the generality, the weaker is the motivation to perform accordingly. In short, a person tends to do what is important to him.

A person may also increase his total self-esteem by confining his behavior to the expression of those dimensions on which he has the highest self-evaluation. He compensates for his weaknesses by substituting performance which reflects his good attributes. In short, he tends to do what he's good at and to avoid doing what he's bad at. Similar hypotheses might be derived by postulating generalized needs such as "hope success" and "fear of failure," but starting with such assumptions, one cannot identify in advance the activities that will be substituted one for the other unless one also includes propositions about the evaluation and generality of attributes of self-identity.

When required to act in a manner that reveals his bad attributes, a person may, as a second line of defense against loss of self-esteem, avoid evaluating the bad performance. But, this defense is often undermined by the communications of other people; the boss, for example, may convey his negative evaluation of the man's performance. If a person is forced to perceive a poor performance, he may retreat to a third line of defense and deny that the poor performance implies a corresponding bad attribute of the self-identity. In situations such as an appraisal interview, for example, the subordinate can neither avoid the performance nor escape his boss's evaluation of it. He can still defend his self-esteem by dissociating the evaluation of himself from the evaluation of his bad performance. This may take several forms such as admitting the bad performance but saying to himself that he was not trying hard, that he was not to blame because the proper tools were lacking, or by blaming the poor performance on others who were working with him on the same task.

Some of the adjustive techniques require considerable foresight. A person who anticipates failure on an impending task may protect himself in advance by setting his level of aspiration unrealistically high or unrealistically low. Since feelings of success and failure are determined by performance above or below one's level of aspiration, respectively, one can assure a feeling of success by setting one's level of aspiration safely below one's expected level of performance.

Alternatively, the very high level of aspiration permits one to escape self-blame with the rationalization that nobody could be expected to achieve such a difficult goal.

Finally, there are a variety of extensions of the self which offer promising opportunities for the boosting of self-esteem. Prominant among these is the striving for a position of status within a group or organization. The various steps, which have been suggested, can be put together as follows: High status constitutes high objective public evaluation, and this high evaluation, when communicated to the person, produces high subjective public evaluation, which in turn produces high self-esteem. A second technique is to boost the esteem for a group which the person has sufficiently internalized so that it has become an extension of the self. The chauvinistic flag-waving of the 100% American may be a thinly disguised form of self praise.

Self-actualization

In discussing theories of motivation, Koch has pointed out, "In the technical theories, the central assumption is that action is always initiated, directed, or sustained by an inferred internal state called variously a motive, drive, need, tension system, whatnot, and terminated by attainment of a situation which removes, diminishes, 'satisfies,' or in any other fashion alleviates that state." (Koch, 1961, p. 632.) The motivated behavior is seen as instrumental to the removal of some biological disequilibrium or some learned derivative such as an "acquired motive." Because such theories of motivation have had difficulty in accounting for intrinsically morivated behavior such as creative and aesthetic activity, psychologists have tended to account for such phenomena by inventing needs for achievement, self-realization, and growth. Instead of postulating such generalized needs, we conceive of a whole set of dimensions of self-identity, each with its associated value scale, which generates a specific, intrinsic motivation. The value is conceived as a force-field associated with the dimension (French and Kahn, 1962). When associated with a performance dimension, the force field sets up tendencies to behave in accordance with the value.

The concepts of self-development and self-utilization and a set of hypotheses employing them have been elaborated elsewhere (French and Sherwood, 1963), so we will confine this discussion to the motivational aspects of self-utilization. Self-utilization defines a relationship between a large set of dimensions of self-identity and corresponding dimensions of performance. By performance we mean behavior which can be evaluated along a value scale. Such corresponding dimensions for performance and for self-identity will exist for all abilities whose existance is inferred from performance and for all behavioral traits which are defined in terms of typical performance of the person. For example, various dimensions of job performance such as typing have corresponding ability dimensions such as typing ability, and various dimensions of moral and ethical behavior will have corresponding self-identity dimensions such as generosity, honesty, and aggression. Self-utilization on such corresponding dimensions can be defined quantitatively as the discrepancy between one's highest skill or competence on a self-identity dimension and one's typical level of performance on the corresponding dimension. A man with an IQ of 200 on a job which requires an IQ of only 100 would be utilizing only 50% of his intelligence. However, many other dimensions would also be involved in his total occupational self-utilization. Similarly, a man's sub-identity as a father may include attributes such as skill at teaching manly arts like boxing and wrestling; and the degree of his self-actualization as a father will depend on whether he has male children of an appropriate age.

In discussing the dynamics of esteem, we have noted that a man is motivated to do what he is good at because it is instrumental to enhancing self-esteem. In addition to this extrinsic theory of self-utilization, we also assume an intrinsic theory. Assumption 4 asserts that wherever there is an attribute of self-identity and a corresponding attribute of performance, then there is a tendency to engage in that performance. More exactly, the greater the generality of the self-attribute, the stronger is the tendency to perform accordingly. A child who conceives of himself primarily as a stutterer has a tendency to stutter even if he and his reference groups consider it a bad thing to do. According to this assumption, any conceivable performance, either good or bad, can become intrinsically motivating if it becomes a part of the self-identity. The crucial condition is the extent to which the performance has set up a corresponding attribute of self-identity. This problem of degree of selfness, or perhaps relevance, is conceptually complex and empirically almost unexplored. However, it does seem to offer one possibility for explaining the mystifying fact that many activities never do become functionally autonomous as intrinsic motives while others do.

The application of this aspect of self-identity theory to the problems of personnel selection, training and placement yields some new theories and types of measurement. The old problem of the square peg in the round hole can be rephrased quantitatively in terms of dimensions of the occupational self-identity and commensurate dimensions (i.e. measurable along the same scale) of the job. The degree of misfit of the man to the job is the size of the discrepancy for the two commensurate dimensions. Where the man's abilities exceed the job requirements, we speak of under-utilization; where the job requirements exceed the man's abilities, we speak of role overload.

Both under-utilization and role overload differ from the formulation of the problem in personnel psychology because the man's abilities are defined in terms of his own perceptions rather than in terms of objective tests. These concepts complement the traditional ones by describing the fit of the man to the job in terms more relevant to his motivation and adjustment. They can explain, for example, how a successful salesman can still be poorly adjusted to his job because his valued attributes of honesty and frankness are discrepant with the role requirement that he make exaggerated claims to customers.

Social Structure and the Structure of Self-identity

Up to this point we have discussed the various parts of self-identity, such as attributes and values and dimensions, and paid less attention to the structure of self-identity. The purpose of this section is to examine five types of relationship between social structure and the structure of self-identity. We postulate that each structural aspect of the group (status ordering, status structure, membership, role structure, and organizational objectives) affects the structure of self-identity. At the same time, there are relations in the other direction; several of these types of social structure are defined in terms of common and shared psychological structures of persons.

We start with the distinction between structure and process, a distinction which applies equally well to the group and to the self-identity of a person. Process refers to changes over time whereas structure exists at a given moment in time. We use the term structure to refer to a set of parts and a pattern of interrelationships among these parts. These patterns specify the relationship which each part has to every other; and they may be represented mathematically as a directed graph. Digraph theory provides a set of structural concepts and a mathematical model for dealing with the structure of groups and of self-identity.

The Status Ordering of a Group.

The parts of a group, either its members or the offices in the group, may be ordered along a variety of status dimensions. A status dimension consists of any relationship between the parts which generates an ordering of these parts from the highest to the lowest social value. For example, members may be ordered from the highest to the lowest according to salary, power, or prestige. But what is prestige as an objective social value? It is the objective public evaluation of members, and it exists only to the extent that the members have common and shared evaluations of each other. The strength of the prestige ordering can be defined quantitatively in terms of the degree of agreement among members.

Each member of a group has a cognitive structure which corresponds to the status ordering of the members. This cognitive structure consists of one or more dimensions of subjective public evaluation, each corresponding to a dimension of objective public evaluation. For each dimension the member has a position for himself and for the other members of the group. This cognitive structure develops from communications by others of their evaluations of the person and of other members. The greater the agreement concerning such evaluations among other members of the group, the stronger the influence it produces on a particular member (French, 1956). In short, there exists a circular social process; the stronger the status ordering of the group, the greater its influence on the identity of the member; the more he conforms, the more he contributes to a strengthening of the status ordering.

The influence of the status ordering of a group on the identity of its members is demonstrated in a study of a large organization (Kasl and French, 1962). The evaluation of the various jobs in the company was common and shared among members so that these jobs formed a status ordering. Furthermore, there was agreement among members on the characteristics attributed to a person because of the job he held. The men were asked to rate the attributes of two unknown men when the only information given about these two men was that the first one held a management job while the second held a craft job. There was almost complete agreement that the manager was higher than the craftsman on attributes of the occupational subidentity such as ambition, education, and administrative skill; but there was no agreement on which of the two men was higher on such non-occupational dimensions as honesty, helpfulness, sense of humor, and frequency of anger.

The subjects also rated themselves on these same dimensions. The profiles of men who held the same job were significantly more alike than profiles of men on different jobs. Moreover, the self-ratings correlated significantly with ratings of the job requirements on commensurate dimensions. From the results we infer that the occupational subidentity represents an internalization of the occupational role. We also found that low job status was related to low self-esteem, and the latter was associated with more frequent visits to the medical dispensary.

The Status Structure of the Group.

As distinguished from the status ordering of the group, its status structure consists of the specific pattern of evaluations that each member accords to all the other members of the group. These "choices" of others as valued members may be represented in a sociogram or directed graph. Corresponding to this group structure, there is a cognitive structure in each member which represents his conception of the status structure of the group. How accurately this internal social structure reflects the objective social structure depends on such factors as the amount of social contact and communication within the group concerning evaluations of each other. It is also affected, as we find when we ask members of a group to predict the choices which others will accord to them, by the biasing effect of the individual's need for high subjective public esteem. Members tend to expect more choices than they actually receive. A person thus sees himself as having higher prestige than is in fact the case, or he anticipates that he will be chosen by the members of the group with the highest status. This favored position in the internal status structure is part of the person's self-identity.

Membership.

One aspect of social structure is the number, size, and distribution of independent and overlapping groups. The position of a person in such a complex social structure may be specified partly by the groups to which he belongs. Psychologically, such membership may be defined in terms of the positive end of two dimensions, each of which runs from a negative end through a neutral midpoint to a positive end. The first of these is attraction to the group which may vary from negative attraction through neutrality to positive attraction to the group. The second dimension consists of the degree to which the other members reject or accept an individual in his membership role: He may be strongly rejected, treated with indifference, or accepted positively in the membership role in the sense that they treat him like a member and apply all the norms of the group to him. A person has strong membership in a group to the extent that he is strongly attracted to the group and is strongly accepted by others as a member. This conception of psychological membership should be distinguished from belonging to a social category such as being an American or a Negro or a Catholic. This latter type of belongingness may mean only that the person himself and others identify him as being in a given social category.

Both membership in a group and belongingness to a social category influence the structure of a person's self-identity. Specifically, a person regards himself as a member and perceives this membership as part of his self-identity. In answer to the question, "Who am I?", Cumming found that members of the middle and upper classes are especially likely to describe themselves in terms of the groups and organizations to which they belong (McPartland and Cumming, 1958). Using somewhat different open-ended questions, we find similar tendencies to describe the self, including the occupational self-identity, in term of memberships. The stronger one's membership in a group, the more it serves as an extension of oneself.

The meaning of membership for self-identity stems not only from the fact that it defines one's position in a social structure but also from the fact that this position leads others to attribute certain characteristics to the person and thus influences him to accept these as attributes of self-identity. For example, common stereotypes about Jews will be applied to all members of this category; in communities where antisemitism is common, these attributions include negative evaluations such as grasping, greedy, sly, etc. Despite their negative evaluation, these same stereotypes may be accepted by Jews and expressed as Jewish antisemitism and as self-hatred for being a member of the Jewish category.

The Role Structure of the Group.

For a formal organization, the role structure is expressed in the table of organization. The basic building block in the role structure is an office which is defined as a set of activities assigned to the occupant of the office. A role consists of an office together with the pressures exerted by role senders to engage in the assigned activities. Roles in a structure are highly interdependent in the sense that performance of one role depends on the adequate performance of reciprocal roles; the supervisor, for example, cannot supervise the work of his subordinates unless there are some subordinates who are working for him.

As we have already noted, the role structure produces a corresponding set of interdependent self-identities in the members. The occupational subidentity, for example, is produced by the internalization of the role; there thus exists within the person's cognitive structure an internal role structure of the group including the person's own role and its relationship to reciprocal roles. The values which he internalizes as part of his occupational subidentity concern these relationships--how a supervisor should treat a subordinate or how a foreman should deal with a union steward. Thus, the occupational subidentity has two kinds of content: First, it contains the dimensions and attributes, such as the man's skill and ability in meeting role requirements; second, it also contains the person's own position in the role structure and his specified relationships to others. This *position in the internal social structure* is part of his self-identity.

Most people are not aware of another type of interdependence among parts of a subidentity. The different attributes and positions in the role structure which constitute a man's occupational subidentity are more highly interdependent with respect to self-esteem than they are with similar attributes in other subidentities. Such interdependence is shown by the degree to which loss of self-esteem on one dimension of the occupational subidentity may be compensated for by a gain in esteem on another dimension in the same subidentity.

Group Goals and Organizational Objectives.

We use the concept of group goal (or organizational objective) to denote a super-individual motivational state formed by the interdependence of goals among the members. It is difficult to know just how to define this concept, but it seems best to base it on the members' goals for the group--what they want the group to do. The strength of a group goal is defined as the degree to which a goal is common and shared among members; but we assume that we must weight the members in accordance with their power.

This definition of group goals implies that members have goals for the group and have conceptions of others' goals for the group and of the extent to which these are shared in the group. This internalized goal structure, when combined with each person's internalized role structure and with a strong membership in the group, produces a powerful reinforcement of the individual's motivation. Because he is attracted to the group, the member finds that his own goals for the group are reinforced to the extent that they are shared with others. This socially reinforced motivation to implement the group goal also elicits motivation to carry out one's own role. In one laboratory experiment, we found that the more important the person's role in the group, the stronger his motivation and the harder he worked. At the end of the experiment the subject in an important group role reported that he worked harder because he felt responsible to the others who depended on him for the achievement of their goals.

The goals of a group may be quite diffuse and still serve to reinforce the motivation of members. For example, the goal of a family on vacation may be as vague as having a good time together, yet this goal can motivate all members to engage in a recreational activity which is attractive for only one or two members.

Summary

In this paper, we have outlined a nomenclature that we have found useful in analyzing problems pertaining to the nature of identity, and we have proposed a group of principles focusing on the origins and dynamics of esteem. Throughout, we have attempted to highlight principles relevant to motivation and to the linkage provided by identity between social structure and the motivation of individuals.

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Self-Actualization and Self-Identity Theory

by John R. P. French, Jr. and John Sherwood

In his interaction with his environment the person constructs a repertory of percepts, concepts, or attributes by means of which he identifies and discriminates objects and events in his psychological environment. It is one subset of this cognitive universe which will concern us here; that subset which provides the individual with a frame of reference for perceiving and evaluating persons, himself and others. It is assumed that the same or similar cognitive categories are used in perceiving, evaluating, and reacting to oneself and others; therefore, self-identity theory may be seen as fundamental to a theory of person perception. This seems to be well-supported by research (e.g., Deutsch and Solomon, 1959). It is also assumed that the person's perceptions of himself, i.e., his self-identity, constitute a cognitive structure which is subject to the laws governing changes in cognitions, but which is, in addition, subject to principles of change which are unique to self-identity. Some of the latter principles are presented here in the form of a tentative set of postulates and derivations.

The concept of self-identity or its equivalent has had a long and fruitful history in the social sciences. However, as MacLeod pointed out in 1951 (and, according to Wylie, 1961, it is nearly as true today) disappointingly little scientifically acceptable research has been produced in this area. Probably the major explanation for the apparent deficit has been the lack of systematic theory to provide the basis for systematic research. A most encouraging contribution in the area of self-identity theory is Miller's (1963) formulation; it will provide the basic orientation for this discussion. Although it is essentially a descriptive account of self-identity, it offers the potential for incorporating other properties of the person into the theoretical framework and for linking personality constructs to both the psychological and social environments.

Our approach to self-identity emphasizes the description of the person's environment and his self-identity in commensurate dimensions. It should, therefore, have some efficacy as an integrative approach in that it provides a basis for relating concepts of motivation to social process and social organizational variables. In addition, it permits measurement of person and environmental variables with similar measurement techniques, thereby providing a conceptual basis for research. This discussion will attempt to demonstrate the usefulness of self-actualization as one example of an organizing concept in relating self-identity to the social environment and to the person's motivational system.

One major criterion for the evaluation of any theory is the range of phenomena which it can usefully explain and organize. The theory to be stated deals with some problems which have not been explored in the research literature, and which have not been adequately handled in the abundance of extant theory, particularly the relations between self-identity and self-actualization. The usefulness of this deductive theory will be demonstrated by relating the derivations to diverse and important social phenomena.

The presentation will take the following form: First, a series of working definitions will be offered. A theory of self-identity and its relation to self-actualization will be presented as a set of postulates and some derivations from these postulates and definitions. In addition, some conjectures based on the theory will be offered.

The discussion will begin with (a) the basic unit of cognitive structure, which is called a primary subset. (b) Self-identity will then be defined. (c) Three conceptual properties of self-attributes, which are the units of self-identity, will be introduced. (d) The concept of generality will be presented as a relation between cognitive structure and self-identity and as a weighting factor in self-evaluation. (e) Self-actualization will be defined as development and utilization of valued self-attributes. (f) Finally, the postulate set and some derivations and conjectures will be presented.

Definitions of Concepts

Theorists using the concept of self have imposed limitations on their conceptualizations because of inconsistent use of their concepts (cf. Thompson's 1958 criticisms of Sullivan). To achieve clarity and precision in fundamental concepts a rigorous statement of basic premises and of working definitions is necessary both to facilitate communication and to allow for the power of the deductive method. The several cognitive elements which are assumed to constitute the person's self-identity must be defined before a definition of self-identity is presented.

Hume once stated, "I can never catch myself at any time without a perception, and never can observe anything but the perception." (1920, p.239). It is precisely these perceptions of which we speak. Self-identity is a cognitive system with motivational and evaluational properties. The discussion will begin with the cognitive units. The basic element of the theoretical system is called an attribute; it is a percept or cognition by which the individual designates and discriminates persons, either himself or other persons.[1] These correspond to what Bruner (1956) might call person attributes, or potential person attributes in that they may or may not be attributes of a particular person. Some examples of person attributes might be: tall, pretty, friendly, cruel, stupid, boring, etc.

Primary Subset and Dimension

The first of the cognitive structures to be discussed is called a primary subset. This is a cognitive category or set of attributes used by persons in the perception of themselves and others. An example of one primary subset used by *P* might be physical height, consisting of various numbers of inches describing how short or tall people are. The concept of primary subset is a set theoretical notion and is a revision of Miller's (1963) theory,[2] where the corresponding units of self-identity are dimensions. The revision was made in order to include those properties of *P* which are not necessarily dimensional in nature. Miller asserts that self-identity is constituted by *P*'s perceptions of himself on identity dimensions, which are sets of alternative attributes with a common core of meaning and are scaled in a unidimensional ordering. We have chosen to omit the restriction that the attributes must lie on a single dimension because some sets of attributes, for example hair color, seem to have a common core of meaning but are not unidimensional.

Definition 1. A primary subset is defined from the point of view of the perceiver and is a subset of person attributes, such that, one and only one attribute may be assigned to a person at one time, but all elements of a primary subset are potentially assignable to some person.

The person perceives these attributes to be mutually exclusive so that if he assigns one attribute to a person (himself or another), he will not perceive that same person as possessing other attributes within the same subset, e.g., he will not see himself as being young and old at the same time, nor both stupid and bright at the same time. It is also assumed that all elements of a primary subset possess some implicit or explicit criterial property by which they are assigned membership in a primary subset by P.

Part of the structure of self-identity consists of attributes of primary subsets which P imputes to himself. Examples of primary subsets might be: aggressiveness, neatness, honesty; others might refer to abilities, e.g., intelligence; or skills, e.g., golfing or putting; or interests, e.g., interest in sports; or motives, e.g., to do well in school. Primary subsets may vary in degree of differentiation, abstractness, clarity, reference group relevance, and in the evaluations attached to the attributes.

Relations Between Attributes of a Primary Subset: Scaling. The concept, primary subset, can include any kinds of relations between the attributes of person perception which are elements within a primary subset. It is assumed that there are at least five different types of relations which may exist between the elements in any primary subset. The mere existence of one attribute for a person means that for P this one attribute is seen as being different from the other attributes in the set; hence its "existence." This kind of relation between attributes typically takes the form of naming the attribute and is called a nominal relation. In the remaining four possible types of relations between elements of a primary subset the attributes are ordered in a continuous fashion, i. e., there exists at least a transitive "greater than" relation between elements. This is true for ordinal, ordered metric (Coombs, 1950), interval, and ratio scale relations. For the instance where such a continuous relation exists between the attributes of a primary subset, the primary subset is then called an identity dimension.

Definition 2. An *identity dimension* is a primary subset of person attributes, such that the person attributes constitute an ordered series of at least ordinal scale strength and *P* assigns one of the attributes to himself, i.e., any continuously scaled group of cognitive elements which is a primary subset and which is used by *P* in self-perception (see Fig. 1).[3]

Definition 3. A *self-attribute* is defined as the person attribute of a primary subset which *P* assigns to himself. In terms of identity dimensions, a self-attribute is the location which *P* imputes to himself on a single identity dimension.

Self-Identity Includes Internalized Social Structure. As Murphy has indicated, in his relations with others *P* "learns where he belongs, who and what he is" (1958, p. 83). Such group membership and *P*'s position in the group, if valued, are probably represented in *P*'s self-identity as complex cognitive structures, rather than as simple self-attributes or as locations on unidimensional identity dimensions.

Bugenthal and Zelen (1950), Kuhn (1960), and McPartland and Cumming (1958) have demonstrated that persons respond to the "Who Am I?" questionnaire in terms of person-other relations, e.g., "friend of"; membership in social categories, e.g., "I am an American"; and roles or positions in social structures, e.g., "professor." Such responses vary with age, sex, and socio-economic status.

Self-identity includes such complex cognitions as those based on the person in a relation with others. In the case of internalized social relations, a particular subset of person attributes may be used to describe a relation between persons. Self-attributes in this case are *P*'s *perceptions of his relation with another person(s)*, or his perceptions of his position in a social structure relative to others. That is, self-identity includes an internalized set of P-O relations or internalized social structure. This is meant to include cathected or introjected Os as discussed in object relations theory (Klein, 1932).

Any social system is assumed to be multidimensional, that is, it may be described in terms of such structural variables as, power structure, communication structure, socio-emotional structure, etc. P's perception of his own position in such a structure may be conceptualized as a multi-propertied part of the self. But the meaning of P's own position stems from the fact that it defines P's relation to another person or to a social structure.[4]

The units which constitute self-identity have now been presented as self-attributes within primary subsets of person attributes (which may or may not be identity dimensions) and more complex self-attributes (multi-propertied) which represent internalized social structures (P in relation to Os). Self-identity will now be defined.

Definition 4. Self-identity is defined as the totality of the person's self-attributes at a given moment in time.[5] It includes self-attributes which refer to characteristics of P which are as simple as physical weight or as complex as the relations between husband and wife or as membership in a large-scale social organization. Self-identity includes P's perceptions of (or the cognitive content of) behavioral "traits," abilities, capacities, skills and perceived interests and motives, all of which he perceives as being "characteristic" of himself.

The distinction between self-identity and environment is not an all-or-none matter, especially for those parts of self-identity which correspond to social roles and those aspects of the environment in which P is ego-involved. For example, the degree of internalization of a role represents the degree to which it is a part of the self-identity rather than of the environment.

Conceptual Properties of Self-Attributes

Three conceptual properties of self-attributes are to be discussed: content, evaluation, and strength.

1. Content. The first measure or property of an attribute was evident in the discussion concerning the ordering of attributes within a primary subset, namely the criterial property by which the attribute was assigned membership in the subset by P. This measure of an attribute is called the content, that is, attributes of a subset may vary quantitatively on the basis of the empirical content which they represent in P's cognitive world. Such quantitative variation between the elements of a primary subset may take the form of nominal or categorical inclusion (e.g. male-female) all the way to ratio scale relations (e.g., physical height). For P an example of ordered relations between attributes on the basis of content for the primary subset "aggressiveness," might be: Frowning is less aggressive than cussing, which is less aggressive than hitting, which is less aggressive than hitting with a weapon, which is less aggressive than killing (this describes an ordinal relation).

2. Value. Thus far self-identity has been approached as a cognitive structure; yet, if the theory is to be useful as an integrating approach, self-identity must be related to other aspects of the person.

Miller suggests some connections between the cognitive and evaluational which are quite useful. He notes that on certain, or perhaps all, identity dimensions some segments have particular significance to P, in that they represent positively and negatively valued poles. There is a range at the positive end of the dimension which is "ideal"; it is very desirable for P to perceive himself as being located within that range (i.e., the ideal self-attributes). There may also be a range at the negative end of the dimension, which is perceived as being undesirable and is to be avoided. Presumably, P's evaluations of these ranges accrue out of social experiences or perceptions of rewards and punishments.

It is assumed that the meaning of behavior is socially defined and socially valued, and that these meanings and values are internalized by P, i.e., social norms become P's values. Therefore, his self-attributes have social significance for him with regard to evaluative reference groups. His values are associated directly with attributes of self-identity, determining which attributes are attractive or unattractive. This evaluative conceptual property of self-attributes provides a basis for self-evaluation and motivation. Self-attribute evaluation is defined as P's evaluation of his self-attribute within a primary subset. P also attaches evaluations to other person attributes within a primary subset; this provides the basis for his evaluations of others.

Definition 5. A value standard is the unidimensional ordering of a value along an identity dimension (see Fig. 1). A value standard provides the basis for evaluations by P of attributes, including self-attributes.

A person attribute is positively valued if it is attractive to P, and negatively valued if it is repulsive. Although a value standard is associated with an identity dimension, the possibility of independent variation must be noted. That is, a change in either the identity dimension or the associated value standard may occur without a change in the other. For example, a person's standards for evaluating skill at skiing may change as he tries unsuccessfully to improve his skill.

Definition 6. Self-evaluation is the person's evaluation of his self-identity, i.e., the total of his evaluations of his self-attributes.[6]

3. Strength of a Self-Attribute. The third conceptual property of self-attributes is that of strength.

Definition 7. Strength of a self-attribute is defined as the frequency, weighted by the intensity of arousal of that self-attribute relative to other self-attributes of P's self-identity. Arousal means used to perceive or evaluate oneself at a moment in time, and intensity means the extent to which that single self-attribute constitutes P's self-identity to the relative exclusion of all other self-attributes at a moment in time. It is likely that frequency and intensity are positively correlated, although not perfectly correlated.

The strength of a self-attribute is probably a function, amongst others, of: its universality of applicability in the perception of oneself and others; its relevance or instrumentality for a particular person-other interaction; the frequency of relevant role enactments, performances, or utilization of skills; the extent to which its time perspective is the present as opposed to P's psychological past or future; and the extent to which it is a conscious self attribute as compared with unconscious self-perception (   ). Strength of an attribute is similar to Allport's (1961) criteria for the existence of a trait, in that he includes both frequency and intensity. His third criterion, range of situations to which the trait applies, is to be discussed below.

Generality as a Weighting Factor in Self-Evaluation

Three conceptual problems consistently confronting theorists have been the interdependence between elements of self-identity, the characteristicness or identifiability of P, and the stability of self-identity. Yet few theories have been able to specify principles of organization or even to provide suitable concepts to provide the conceptual framework for empirical inquiry into the bases of organization. The discussion will now turn to one way in which primary subsets are related to one another, which in part provides a basis for the assignment of person attributes to others and to oneself.

Cognitive implications means the probability that one person attribute will be assigned to a person (oneself or other), *if* that person is assigned another person attribute. For instance, if a man is seen as being a "big" man, he may also be perceived as being strong. There is a certain probability depending on P's cognitive structure that P will also assign the attribute "strong" to that man, based only on the datum that the man is big. It is hypothesized that cognitive implications are based upon the degree to which one primary subset intersects with another primary subset, i.e., the percentage of person attributes in the intersection.

Since it is assumed that attributes of a primary subset have the conceptual property of content, if two primary subsets intersect, the attributes contained in that intersection will represent the contents of both primary subsets. An attribute contained in an intersection of primary subsets is, therefore, a *multipropertied* attribute.

Figure 2 depicts two intersecting subsets, A and B. Since only one attribute of a primary subset may be assigned to a person, it follows that if P is assigned an attribute of one subset (A), the larger the percentage of attributes contained in the intersection ($A \cap B$), the lower the probability (cognitive implications) that he will also be assigned an attribute which is contained in the primary subset B but not in A ($B - A$). Also, the greater the percentage of attributes of two primary subsets which lie in their intersection, the greater the probability that, if *P* is assigned an attribute of one primary subset (A), that attribute will also have the criterial property of the other intersecting primary subset (B). That is, the larger the intersection, the higher the probability that if *P* is perceived as having the property of one primary subset, he will also be perceived as having the property of the other intersecting primary subset. Possibly such phenomena as stereotypic thought, the halo effect found in psychological ratings, and research findings concerning personality trait attribution (e.g., Asch, 1952) are based upon cognitive structures which are high in cognitive implications.

Definition 8. The *generality of a self-attribute* is defined as the number of primary subsets which intersect with that self-attribute (or in other words, the number of primary subsets which contain that self-attribute) *weighted by the strength* of that self-attribute. Generality is the weighted sum of the *cognitive content* of a self-attribute.

A self-attribute which is high in generality is also multipropertied, and it is probably an element of a subset (formed by the intersection of primary subsets) which is high in cognitive implications and generic in terms of cognitive content due to the number of primary subsets forming the intersection. Such a self-attribute is hypothesized to be highly stable, since it is a member of numerous primary subsets, and for the same reason it also could be highly unique and characteristic of the particular *P*.

Assuming that there is some continuity and stability in self-identity over time, situations, and roles, those self-attributes which consistently contribute to self-identity (i.e., which are high in strength), are probably high in generality. A meaningful unity of self-percepts is to some extent a function of the generalities of self-attributes, in that generality deals with the degree of interdependence of self-attributes.

The concept of generality also deals with the "characteristicness" of a self-attribute of self-identity in *P*'s identification of himself and others' identification of *P*. It is similar to Bruner's (1956) use of criterial attribute in the perception and categorization of things. A factor analysis of a self-identity would probably yield factors corresponding to self-attributes which were high in generality. It is probable that for a given *P*, such self-attributes are important to most of the social groups that are used by him as reference points in the perception and evaluation of his behavior and feelings; and that they are recognized by *O*s as stable or typical aspects of *P*. Perhaps it is self-attributes which are high in generality which are evoked in the "Who Am I?" self-inventory measures.

We use the concept of generality in an attempt to determine how it is that some self-attributes have relatively more weight in the determination of self-evaluation.[7] Generality is a continuous variable and as such allows for the conceptualization of "inconsequential" properties of the person, as well as changes in the relative importance of self-attributes to self-evaluation.

A self-attribute which is high in generality is also high in its cognitive implications, thereby influencing the assignment of other self-attributes of self-identity. A self-attribute which influences other self-attributes will thereby influence self-attribute evaluations, since a change in cognitions will usually result in a change in evaluations. Therefore, it is postulated that the contribution of a self-attribute evaluation to total self-evaluation is weighted by the generality of that self-attribute.

Self-Actualization as Self-Development and Utilization

"The interest of man is to realize his inherent potentials"; this thought has reached modern psychologies under the rubric of self-actualization. Representatives of this position include: Adler's (1935) "creative self" and the striving for superiority; Allport's (1955) Becoming; Jung's (1954) "concept of the self" and the individuation process; Maslow's (1954) self-actualization or growth motivation; and Rogers' (1959) and Goldstein's (1940) self-actualization.[8]

Woodworth (1958) has long been arguing for the inclusion of the behavioral capacities of any species in an adequate theory of motivation. Activity needs have recently gained currency in experimental psychology (e.g., Harlow, 1953). In his attempt to organize the concepts and data which have not been adequately handled by theories of motivation based upon drives, White (1959) has offered the concept of competence and has given this motivation weight equal to that given the more traditional physiological drives. Koch (1961) and Prentice (1961) have indicated the need for an adequate conceptualization of "in and for itself" activity.

Definitions of self-actualization are sufficiently vague so as to require a paragraph (or more) and serve only to be provocative rather than definitive. Generally they lack the conceptual clarity necessary for rigorous theorizing or quantitative research. For instance, Maslow has generally equated his "self-actualized man" with the notion "mature," and then listed 13 descriptive phrases as characterizing such a person, e.g., "more democratic character structure," and "increased identification with the human species."

While theories using the concept, self-actualization, have been criticized on various grounds (e.g., Smith's 1961, criticisms concerning implicit value premises), it is primarily the fact that they are not easily translated into hypotheses or research operations (cf. Olds, 1955; McClelland, 1955) that probably accounts for the relative lack of generation of a research literature. We will now attempt to integrate the concept of self-actualization into a coherent theoretical model which will serve as a meaningful basis for research.

The subsequent discussion is concerned with two subtypes of self-actualization, self-development and self-utilization, which are defined in terms of self-identity theory. Self-development is the extent to which P perceives his development as a "realization of what he believes he can be." Self-utilization is the use of positively valued attributes of his self-identity in a person's typical levels of performance.

Definition 9. Self-development is defined as the inverse of the discrepancy between a self-attribute and a positively valued potential self-attribute (see Fig. 3). It is assumed that in general performances, capacities, and skills are relatively easily ordered by P, and hence, are usually represented in P's cognitive structure as dimensions. An identity dimension with skill as its cognitive content is called a skill identity dimension. Self-development is to be discussed primarily in terms of skill development, and therefore, in terms of skill identity dimensions; however, it is a much broader concept and includes the relation between self-identity and any valued perceived potentiality, e.g., the arduous grooming of the adolescent girl is conceptualized as self-development of the body image. A potential self-attribute is that self-attribute which represents P's perception of his potential skill level; it is self-defined, and therefore, may vary on a realistic-irrealistic dimension and may change over time. A level of potential skill may be able to be defined by the scientific observer, on the basis of tests of aptitude in relation to age; however, such an observation by the scientist does not necessarily represent P's perceptions of his own self-development.

It is assumed, that for most primary subsets which refer to skill levels, "behavioral traits" which are manifest in behavior, and some motives, such as interests, there are corresponding performance primary subsets. Performance primary subsets are those cognitive categories which are used in the perception of behaviors of people; while primary subsets of person perception (person primary subsets) are cognitive categories which are used in the perception of people, e.g., of traits or skills. The former refers to P's perceptions of his and others' behaviors, while the latter refers to his perceptions of himself and others.

Definition 10. A performance primary subset is defined from the point of view of the perceiver and is a cognitive representation of a subset of behaviors (i.e., performance attributes), such that one and only one performance attribute may be assigned to the perceiver or to another person at one time, but all attributes are potentially assignable to some person.

Definition 11. A performance primary subset is said to be a corresponding performance primary subset, if it is associated with a primary subset of person attributes, such that, both subsets are based on common content; the performance attributes referring to behaviors and the person attributes referring to characteristics of persons assumed to underly such behaviors. Two corresponding subsets will probably often have similar value standards associated with them. If P's performance corresponds to a subset of his self-identity, then he will be self-involved (ego-involved) in the task, and his success or failure will affect his self-evaluation.

For every identity dimension with some kind of behavior as its cognitive content, it is assumed that there is a corresponding performance (or behavioral) dimension, since it is assumed that persons infer their level of skill development and level of skill utilization from behaviors or performance, e.g., from utilizing their skills. In inferring level of development most weight is probably given to P's perceived maximal performance, rather than to his typical or minimal performance, since it is assumed that P feels such performance is due to both motivation and capacity.

Self-utilization follows from and is dependent upon self-development, in that, some development of capacity must have taken place before there can be utilization of capacity.

Definition 12. Self-utilization is defined as the inverse of the discrepancy between a positively valued self-attribute and a performance attribute representing characteristic level of performance on a corresponding performance dimension (see Fig. 3).[9]

One of the limiting conditions which will be discussed under postulate VI of the theory, is that the influence of behavior on self-identity is a function of whether or not the behavior is perceived as being "characteristic" of P. Self-utilization is discussed in terms of typical behavior, for the same reason; persons tend to assign themselves a self-attribute if they perceive a behavior as being characteristic of themselves. P is a generous person to the extent that he behaves generously.

Thus far in the discussion, self-actualization has been used only in terms of a single identity dimension; however, as with self-identity and self-evaluation, self-actualization defines a relation between a large set of identity dimensions and corresponding dimensions of performance. Some research findings relevant to self-development and self-utilization will be presented in the discussion of derivations of the theory.

The Model

Eight main postulates plus a definition of force from Lewinian theory (1951) form the basis of the model. This model, like any other, must always assume "other things being equal," in making empirical predictions from any of its propositions.

Postulate I. There exists a force on the person in the direction of higher self-evaluation.

The force construct is used as it was conceptualized by Lewin (1951) as a tendency to change, including both molar behavior and cognitive restructuring. It is employed to designate the direction, point of application, and strength of a tendency to change.

While there is a large body of empirical data which is better understood by this postulate, only a sampling will be taken. Lehner (1956) found that in general "persons feel that they are better than average." In a report concerning errors in self-ratings Cogan, Conklin, and Hollingworth (1915) found, "in the case of 'undesirable' traits this constant error is toward underestimation...in the cases of 'desirable' traits, the general tendency is toward overestimation." Engle (1959) found an "unpredictable increase" in children's self-evaluations over a two-year period. Taft (1954) found that Negro boys remembered more of the favorable points of a Negro than did white boys. Selective forgetting of unfavorable experiences has been reported by Nowlis (1941). When asked to recall bogus ratings which others had made of them, subjects tended to recall the favorable ratings (Shaw and Spooner, 1945). Experimental studies regarding repression have demonstrated that where subjects had suffered a lowered self-evaluation, in later recall the prior self-depreciating events were distorted in the direction of higher self-evaluation (e.g., Aborn, 1953). After a failure experience, Diller (1954) found that there was no change in either "overt or covert" self-evaluation; however, after success self-evaluation increased. Loehlin (1961) reported that a concept was more likely to be used in self-description when it was given a more favorable meaning. And finally, Webb (1951), Bass (1960), and Kay, French, and Meyer (1962) have found that persons consistently tend to over-evaluate themselves.

Subsequent to the writings of James, Cooley, and Mead, several propositions, concerning the influence of others on P's self-identity and self-evaluation, have become axiomatic in social psychological theory. Some additional definitions must be presented prior to the statement of this series of postulates.

Definition 13. Objective public identity (OPI) is defined as the perceptions by referent others of the person, i.e., how others actually do perceive P. It is represented in the cognitive structures of Os by attributes in the perceiver's (O's) primary subsets of person perception; its content refers to the person being perceived. There are as many objective public identities as there are referent groups and figures which constitute part of *P*'s social environment.

Definition 14. *Subjective public identity* (SPI) is defined as the perception by the person of his objective public identity. It is represented in *P*'s cognitive structure as subjective public attributes within primary subsets which the person perceives to be imputed to him by others. This is the *social self* of James (1890) and Brownfain (1952).

Definition 15. *Objective public evaluation* (OPE) is the evaluation by referent others of the person's objective public identity.

Definition 16. *Subjective public evaluation* (SPE) is the person's perception of his objective public evaluation.

Postulate II. There exists a force on the person's self-identity in the direction of his subjective public identity [SPI ----> SI, read SI = f(SPI)].

Postulate III. There exists a force on the person's subjective public identity in the direction of his objective public identity (OPI ----> SPI).

Postulate IV. There exists a force on the person's self-evaluation in the direction of his subjective public evaluation (SPE ----> SE).

Postulate V. There exists a force on the person's subjective public evaluation in the direction of his objective public evaluation (OPE ----> SPE).

These four postulates link to form two causal chains: OPI ----> SPI ----> SI, and OPE ----> SPE ----> SE. These postulates assert that there is a tendency for the *P*'s self-identity and his own evaluation thereof to conform to his perceptions of how referent others perceive and evaluate him (public identities were defined in terms of referent others, not all or any other persons). It is also postulated that enough communication from such others occurs so that perceptions tend to conform to the objective realities of referent others' perceptions and evaluations of him.

Following Festinger (1954) it is assumed that where dependence upon physical reality for the validation of one's ideas is necessarily low due to the nature of the referent of these ideas, in this case one's self-identity, the dependence upon social reality is correspondingly high. Underlying Festinger's assumption is the assumption that there are pressures toward veridicality of perception, or that veridical perception is valued or instrumental to the person.

There is also abundant empirical support for these postulates. For example, Cohen (1954) found self-evaluation to be dependent upon evaluative communications from Os concerning P's performances, and the evaluations which Os assigned to his defensive behaviors. Stotland and Zander, (1958) reported where poor performance was known to another, lower self-evaluation resulted than when such performance was unknown to Os. Mannheim (1957) has offered evidence in support of postulate II in demonstrating that as subjective public identity changed over time, self-identity changed in a corresponding manner. Miyamoto and Dornbush (1956) and Blau (1956) also have reported evidence that subjective public identity and self-identity were highly associated. Amatora (1956) reported a high correlation between objective public identity and self-identity, as have Reckless, Dintz, and Kay (1957) and Kates and Jordan (1955). Manis (1955) found that self-identity corresponded to the objective public identity held by referent others.

Dittes (1959) and Silver (1958) have reported significant correlations between self-evaluation and objective public evaluation. Videbeck (1960) found that as objective public evaluation changed, self-evaluation changed in a corresponding fashion. Kasl (1962) found that OPE was correlated with SPE which was in turn correlated with SE. Jourard and Remy (1955) reported a significant relation between SPE and SE. Helper (1955) found that subjective public evaluation was more highly correlated with self-evaluation than was objective public evaluation, although both correlations were positive.

Harvey, Kelley, and Shapiro (1957) supported an interaction effect between postulate I and the postulates under discussion in a study of reactions of persons when they were confronted with evidence that other persons evaluated them lower than they had evaluated themselves. The subjects did try to maintain their self-evaluation by distorting their perceptions of the situation; however, they were also influenced by negative evaluations of themselves by others.

Several limiting conditions for postulates II - V can be stated. (a) The extent to which the public is a referent public to *P*, i.e., the extent to which the public has referent power over *P* (French and Raven, 1960) has been demonstrated by Sherwood, 1962, and Mannheim, 1957. (b) The extent to which the objective public identity and evaluations are, in fact, communicated to *P* has been experimentally demonstrated by Lippitt, 195 and by French, Sherwood and Bradford, 1963. Some relevant variables concerning communicated objective public identity (COPI) and communicated objective public evaluation (COPE) are: the degree of intimacy between the public and *P*, the content of the communication, the shared norms controlling the communication of perceptions and evaluations of *O*s (e.g., "even your best friend won't tell you you have halitosis"), and the extent to which the self-attribute is dependent upon social reality for validation. The causal chains now read: OPI ----> COPI ----> SPI ----> SI, and OPE ----> COPE ----> SPE ----> SE. (c) Finally, and this is also a limiting condition on postulate I, there is an interaction between postulate I and all other postulates of the model. When OPE and SPE are discrepant with P's tendency to increase his self-evaluation, the opposing forces must be resolved. Some factors which are relevant to the determination of a resultant force are the degree of agreement and clarity of communication of the public identities and evaluations to P. A proposition from functional theories of perception would be that the more ambiguous the communicated public identity or evaluation, the more postulate I contributes to the outcome. It is possible that where reliance on social reality is the greatest, self-evaluation will be more influenced by forces from SPE than from P's tendency to increase SE.

Some variables which are important determinants of the resultant force in postulates II and IV (SPI ----> SI, and SPE ----> SE) can now be summarized: the degree of agreement amongst referent others, the communication skills of the public, and the extent of referent power of the public; the content and the clarity of communication; the size of the discrepancy between SI and SPI and between SE and SPE; and the frequency and intensity of SPI and SPE arousal (i.e., strength of SPI and SPE).

The sixth postulate of self-identity theory will now be introduced. Thus far we have discussed self-identity as if it were formed and changed only as a consequence of other persons' behaviors. However, it is not assumed that "men are mere captives of the definitions of other people." Learning theorists tell us that we learn what we do or experience.

Postulate VI applies this principle in an attempt to deal with the assignment of self-attributes by P to himself based on the things he does. The same postulate also deals with the formation of objective public identity as a product of a person's behaviors.

Postulate VI. When a person is perceived to be behaving, there exists a force from a performance attribute (in a corresponding performance primary subset in the cognitive structure of the perceiver), which is applied to a person attribute (in a person primary subset), and which is in the direction of assigning that person attribute to person behaving.

This is a rather awkward statement of a very important principle, that there is a tendency for persons to "become what they do," and that there is a tendency for persons to assign person attributes to others in terms of how these other persons are behaving. Self-identity and objective public identity are, at least in part, determined by behavior. When one person perceives another person who is doing something (performance attribute), there is a tendency for the perceiver to assign to that person a person attribute ("he is the kind of person who does that," or "he has that skill and that much skill," "he's good at that!"). The last example is the assignment of a person attribute evaluation (OPE) to the perceived behavior. The same examples could apply to self-perception and the assignment of self-attributes and evaluations to oneself. The conditions under which P will assign a person attribute (OPI) to another are similar to the conditions under which P will assign a person attribute to himself (self-attribute).

There is some empirical support in the literature for postulate VI; however, none has been found which has been conceptualized in these terms. Most of the research offered in support of this postulate is closely related to postulate II (SPI ----> SI). These postulates are obviously not empirically independent; rather, both represent influences on P's self-identity.

Sarbin and Jones (1955) observed a definite shift in self-identity following a role enactment experience. Lewin (1943) found that attitude change was implemented by P's commitment in the presence of Os. Stagner (1948) in a study of American executives, Mead (1950) with the Arapesh, and Dexter (1949), with professional Puerto Ricans, all have reported that those individuals occupying similar social positions usually have many similar personality characteristics. McPartland and Cumming (1958) reported a significant relation between self-identity and ward behaviors of patients. Kuhn (1960) studied several professional schools and found that the schools' influence on self-identity increased with each year of study. Gerard (1961) reported that self-evaluation changed as a function of changed performance. Nahinsky (1958) reported that self-identities of officers leaving the navy were less like those of the career and ideal naval officers who stayed in the navy. Perhaps, this is an example of self-identity "unbecoming."

Postulate VI is concerned with the development of self-attributes as a consequence of behavior; this process could be called "becoming." "Unbecoming" merely means that self-attributes are "weakened" or "lost," which means that the self-attribute is of lesser strength. It is less frequently aroused or evoked, or when the self-attribute is evoked, it is of lesser intensity. Since strength is a weighting factor for generality, if the strength of a self-attribute is less, so will be its generality. And since it is postulated that generality is a weighting factor in self-evaluation, the self-attribute will be less significant in P's self-evaluation.

Several variables can be mentioned which influence the attribution of a person attribute either to oneself or to another. Strength of a self-attribute was defined as the frequency, weighted by the intensity of arousal of that attribute. The strength of a performance attribute is similarly defined, and constitutes an important limiting variable on the influence of behavior on self-identity. "I am a generous person, to the extent that I behave generously." The frequency with which the behavior occurs, determines the frequency with which it is perceived. The intensity of that behavior is the extent to which the performance attribute is used to perceive P's behavior at a moment in time. It is probable that the higher the strength of a corresponding performance attribute, the stronger the force to assign (or strengthen) the person attribute to the performer (SI or OPI).

It is probable that Postulate VI is especially applicable to behaviors which are assumed by the observer to be the consequence of a person attribute. The assignment of such a person attribute is in some fashion functional to the observer, e.g., an attribute which is "characteristic" of P enables O to predict his behavior and provide identifying criteria which allow O to discriminate P from other persons. A person does not become what he does if he assigns the cause of the behavior elsewhere, e.g., Adolph Eichmann perceived himself as an "obedient public servant, not a murderer." However, many people perceived him as a murderer because they perceived him to be the causal agent in the determination of the behaviors. Involuntary behaviors probably do not result in the assignment of a person attribute to the behavior either by P or O.

The time perspective of a role occupant is an important variable in the assignment of person attributes based on role occupancy. If the psychological future of the role or the incumbency in the role is only temporary, attribute assignment will probably not occur or will be very low in generality. For example, a college student who clerks in a store during a single Christmas vacation is not likely to develop a strong sub-identity as a clerk.

The seventh postulate was introduced earlier in the discussion of generality.

Postulate VII. The person's self-evaluation is a function of the person's self-attribute evaluations, weighted by the generality of those self-attributes.

It has been generally recognized that some attributes of self-identity are more important in the person's self-evaluation than are others; that is, some self-attributes make differential contributions to the person's total self-evaluation. This postulate asserts that the generality of a self-attribute constitutes such a weighting factor in determining the relative contribution of a self-attribute evaluation to P's total self-evaluation. The concept of generality (the number of primary subsets which contain the self-attribute, weighted by the strength of that self-attribute) is intuitively appropriate for describing the relatively greater importance of some attributes in the determination of self-evaluation.

It was stated earlier that this conceptualization is able to deal with the uniqueness of the individual. The major, if not the only, unique properties of a person are: (a) what I've done, therefore, what I am (Postulate VI); (b) to whom I relate and in what manner (we discussed this under self-attributes and multipropertied person-other self-attributes); and finally, (c) the person's private behaviors such as daydreaming and fantasy. This latter problem of uniqueness can, in part, be conceptualized in terms of aspired and ideal self-attributes; however, nowhere in the literature is there an adequate conceptual treatment of the influence of such private behaviors on self-identity.

This ends the discussion of the postulates concerned with the substantive issues in self-identity theory. There is one additional postulate from Lewin (1951) which is included for reasons of deductive strategy.

Postulate VIII. Where there exists a positive valence (goal) and a means (path) thereto, there exists a force on the person in the direction of that means.

Some Derivations

Only those derivations considered to have special conceptual or empirical relevance are given, and the emphasis is upon derivations dealing with self-actualization. Included within the set of derivations are a series of conjectures which offer some interesting theoretical and research possibilities. The derivations are made on the basis of the assumption that a ratio scale relation exists between the attributes of a primary subset. This is a simplified assumption, but we believe that the derivations would hold in somewhat weaker forms with weaker scale assumptions.

Derivation 1. An increase (or decrease) in self-development implies an increase (or decrease) in self-evaluation.

By definition (10) self-development can change either by changes in the locations of the self-attribute or potential self-attribute (or both). If it is assumed that the evaluation of a self-attribute is relative to the evaluation of the positively valued potential self-attribute, then a change in the location of the potential self-attribute results in a change in the opposite direction in the evaluation of the self-attribute. If a change in the location of the self-attribute occurs, then there is a correlated change in the evaluation of that self-attribute, and thereby, a change in self-evaluation.

__Derivation 2__. An increase (or decrease) in self-utilization implies an increase (or decrease) in self-evaluation.

By definition (11) self-utilization can change either by changes in the locations of the self-attribute or performance attribute (or both). If it is assumed that the evaluation of the positively valued self-attribute is relative to the evaluation of the performance attribute, then a change in the location of the performance attribute results in a correlated change in the self-attribute evaluation. If a change in the location of the self-attribute occurs, then there is a change in the opposite direction in the evaluation of the self-attribute (see Figure 3).

There is some empirical support for this proposition that there is a positive correlation between self-utilization and self-evaluation. Empirical support for the previous derivation, self-development and self-evaluation, is much less direct and must be inferred from some of the same research findings. Lewin __et al__. reported that the awareness that a given performance was (or was not) a true indicator of capacity had consequences for the person's self-evaluation.

Satisfaction with the work situation and own performances were greatest when a job allowed workers to use whatever skills they had to the fullest degree and when it permitted the workers to use their best skills (e.g., Hoffman and Mann, 1956; Argyris, 1957; Blum, 1958). Patchen (1958) found that those persons who excelled in their work were more satisfied than those who did not.

Walker and Guest (1951), Walker (1950), Marks (1954), and Super (1939) have reported that employee satisfaction increased with an increase in the number of tasks assigned to an employee. It is probable that the consequences of job enlargement will be an increase in the opportunity to develop one's capacities and also an increase in the number of skills which an employee utilizes. Cozan (1959) found that morale, satisfaction, and productivity increased when routine jobs were combined so that employees used more of their skills. Wilensky (1956) reported that of the professional intellectuals in labor unions, those who highly valued their professional skills had as their central motivation, the full utilization of professional skills, and that the opportunities to do so were the most important determinants of their self-evaluations and job satisfaction.

In a survey of jobs from semi-skilled to professionals Schaffer (1953) found that the satisfaction of creativity needs and satisfactory performance according to the self-perception of one's own skills were the most important factors in job satisfaction. Book (1908) found in a study of persons learning to type, that initially during practice periods persons were interested in their work and anxious. However, with more practice and skill, they lost interest and were disgusted with the monotony of typing. As greater skill was acquired, however, these unfavorable attitudes disappeared, and satisfaction increased markedly.

Tuckman and Lorge (1953) found that greater value was placed on job satisfaction (skill utilization) than upon the casual life of retirement when all physiological needs appeared to be fulfilled. Proshansky and Smith (1962) reported that competence, or the relation of a P's skill level to the demands of the activity was one important criterion which children used in attempting to distinguish work which was "fun" from work which was "not fun." French (1955) has shown experimentally that high achievement motivated persons worked longer on a given problem. This and other achievement motivation research can be interpreted as motivation to use one's highly valued skills. Likewise, much of the research on the resumption of interrupted tasks and the finding that routine and easy tasks as well as very difficult tasks are often avoided and disliked can be interpreted in terms of P's utilization of valued skills. Finally, there is an inverse relation between level of education (development of capacities) and job satisfaction, and P's perception of his utilization of skills and job satisfaction (e.g., Moss and Clark, 1961; Mann, 1953; Kay, French, and Meyer, 1962).

Derivation 3. If a means exists, there exists a force on the person toward increased self-utilization.

There is a tendency toward higher self-evaluation (P. I), and an increase in self-utilization implies an increase in self-evaluation (D. 2). Therefore, increased self-utilization is a means for increased self-evaluation; and where there exists a positive valence and a means thereto, there exists a force in the direction of the means (P. VIII). Mann and Hoffman (1960) reported that workers were highly motivated toward both further development and utilization of skills after a technological innovation and the introduction of job rotation.

Derivation 4. To the extent that a self-attribute evaluation is above the mean for all self-attribute evaluations, if utilization of this attribute increases (or decreases), there is a force toward increasing (or decreasing) the generality of the self-attribute.

An increase in self-utilization implies an increase in self-evaluation (D. 1, 2), and there is a tendency toward higher self-evaluation (P. I). If a self-attribute evaluation is above the mean self-attribute evaluation, then an increase in the generality of that self-attribute will further increase self-evaluation; and where there exists a positive valence and a means thereto, there exists a force in the direction of that means (P. VIII).

Derivation 5. If there is a change in self-development produced by a change in a self-attribute, then there will be a corresponding change in the opposite direction in self-utilization. Thus the changes in self-development and self-utilization will be negatively correlated (this is true by Def. 12, 13).

Reference to Figure 3 shows that not all changes in self-development will affect self-utilization. If a change in self-development occurs because of a change in the level of the potential self-attribute, then self-utilization remains unchanged. Similarly, if self-utilization changes because of a change in the performance attribute representing characteristic level of performance, then self-development remains unchanged.

But, if a self-attribute representing level of development (and the corresponding potential performance attribute) changes, then both self-development and self-utilization change. If the self-attribute changes in the direction of the potential self-attribute, then self-development increases and self-utilization decreases. It is assumed, of course, that other things--including the characteristic level of performance--are equal. It sometimes happens in industrial training courses that several men are trained for a higher job, but only one of them has an opportunity to utilize his new skills. The others suffer a decrease in self-utilization along with the increase in self-development.

This proposition raises questions about mass education of lower socio-economic groups and populations of economically less developed states without such skill development being coordinated with the opportunity structure of the society. There is probably more motivation to learn new skills if there are perceived opportunities to use the skills thus acquired. Kay (1961), Kleiner (1961), Wolfe (1961), and Moss & Clark (1961) all have reported an inverse relation between level of education and job satisfaction or self evaluation.

Derivation 6. To the extent that a self-attribute evaluation is above the mean for all self-attributes of self-identity, the higher (or lower) the generality of this self-attribute, the more (or less) behavior tends to be associated with the corresponding performance attribute. Persons tend to do what they are, especially if they're good at it!

The more behavior is confined to a specific corresponding performance attribute, the more self-evaluation will be a function of the evaluation of the associated self-attribute (Def. 7, 12; P. VI). The higher the generality, the more a self-attribute contributes to self-evaluation (P. VII), and there is a tendency toward higher self-evaluation (P. I). A means for increasing self-evaluation is to confine behavior to corresponding performance attributes, where the associated self-attributes are high in generality and where the self-attribute evaluations are above the mean self-attribute evaluation.

Derivation 6 predicts that a person tends to do what he is; that is, the greater the generality of a self-attribute, the stronger is the tendency to perform accordingly. In addition, it might be predicted that given the opportunity, a person will tend to substitute behavior in which he excels (high self-attribute evaluation) for behavior which has a corresponding low self-attribute evaluation; e.g., P may compensate for a low self-attribute evaluation as a result of poor academic performance by playing football where he excels.

Derivation 7. To the extent that a self-attribute evaluation is above the mean for all self-attributes of self-identity, the more (or less) a person's behaviors are associated with a corresponding performance attribute, the greater (or less) is the force toward increasing the generality of the self-attribute associated with that behavior.

Persons tend to become what they do, especially if they are good at it! The more behavior is confined to a specific corresponding performance attribute, the more self-evaluation will be a function of P's evaluation of the associated self-attribute (Def. 7, 12; P. VI). A means of increasing self-evaluation (P. I) is to increase the generality of a self-attribute which is above the mean self-attribute evaluation.

The theory might also predict that there is a tendency for persons to "unbecome" *that which they no longer do frequently* or no longer do well; i.e., with a lack of performance, self-attributes tend to become lower in strength or lower in generality (D. 7; P. I). This proposition has interesting implications for socialization, and for our present concerns with retirement and deskilling via automation.

Derivation 8. There exists a force on the person in the direction of higher subjective public evaluation.

There exists a force on P's self-evaluation in the direction of his subjective public evaluation (P. IV); and there also exists a force in the direction of higher self-evaluation (P. I). If subjective public evaluation increases, there is a force on self-evaluation in the same direction. Therefore, a means for increasing self-evaluation is for subjective public evaluation to increase.

In order to demonstrate the breadth of the theory several additional conjectures dealing with possible responses to threats of lowered self-evaluation can be summarized as follows: (a) There is a tendency not to evaluate those self-attributes which contribute to lower self-evaluation; (b) dissociation of self-attributes from corresponding performance attributes, e.g., "I'm not bad, my behavior was." This is similar to Asch's (1952) differentiation between ego- versus task-orientation. Zander and Curtis (1961) found this to be one response to failure in level of aspiration research; (c) with a threat of lowered self-attribute evaluation, there is a tendency to lower the strength and/or the generality of that self-attribute; (d) or to reduce the degree of cognitive differentiation within the primary subset or value standard.

Some conjectures concerned with P's social environment include: (a) Self-evaluation is a function of P's subjective public evaluations weighted by the degree of referent power of each reference group or reference other; (b) there is a tendency for person attributes which are the most important to members of a group in the perception and evaluation of other members to be high in generality for the group members. (c) the higher the actual or anticipated success in fulfilling a role, the more the role's performance subsets will be corresponding performance subsets, i.e., will be "self-relevant" and will be associated with self-attributes (e.g., role internalization); (d) if role behaviors apply across situations, e.g., M.D. role, the generalities and strengths of the corresponding self-attributes will be high, and therefore, self-evaluation will in large part be a function of those self-attributes.

Footnotes

1. O is used to designate a person other than the person under discussion. The person under discussion is designated P.

2. The concept of primary subset arose out of a series of discussions with Dorwin Cartwright. Amongst Dr. Cartwright's other valuable contributions was the introduction of set theory into our approach to self-identity theory.

3. This conception of identity dimensions has been successfully operationalized and has proven to be useful in quantified research (e.g., Sherwood, 1962; Kasl and French, 1962; also the unrelated but similar operationalization of Burke and Bennis, 1961; Mannheim, 1957; Amatora, 1955).

4. It is also probable that some aspects of social structure, which, for example, are particularly valued by P, will be abstracted and represented in his self-identity as a self-attribute on an identity dimension, e.g., a dimension of popularity.

5. A moment in time as used in this and later discussion means that period of time between any changes in P's self-identity structure. This period could be an extended or very brief time segment depending on the situations confronting the person, his relations with others, and his defensive techniques. The only requirement is that the time unit be such that P's self-attribute is perceived by him to be part of or "characteristic" of himself.

6. Self-evaluation is used here in a similar manner as several other terms in the literature, e.g., self-esteem, self-adequacy, self-regard, self-sentiment. However, self-acceptance (Rogers, 1959) refers to accuracy of self-perception and self-awareness, and is therefore different.

7. When generality is postulated as constituting a weighting factor in determining the relative contribution of a self-attribute evaluation to self-evaluation, it is used in a similar manner to what has been called centrality (Kasl, 1962; French and Kahn, 1962), and coreness (Sherwood, 1962).

There is a problem in choosing a weighting factor in that there are several intuitive meanings of such a weighting factor, and each may be seen as constituting a dimension which varies in degree of importance in self-evaluation or varying in the extent to which a self-attribute constitutes a part of self-identity (degree of "selfness" of a self-attribute). Several of these dimensions which describe the importance of a self-attribute are: (a) the time perspective of the self-attribute, whether it refers to *P*'s psychological past, present, or future. One proposition is that the more a self-attribute refers to the psychological future (e.g., potential attribute or aspired attribute), the less is its influence on present self-evaluation. (b) The distinction between presented self (Goffman, 1959) or persona (Jung, 1954) and *P*'s actual self-perceptions describes a dimension of degree of selfness to *P*. Other dimensions are: (c) degree of cognitive clarity of the self-attribute; (d) the extent to which the self-attribute is conscious versus unconscious; (e) the relative evaluation of the self-attribute; and (f) whether the value is *P*'s own value or represents an induced evaluation based upon his relation to *O*s.

8. The breadth of usage of the self-actualization concept is indicated by the fact that it also plays a central motivational role in the theories of: Angyal (1941), Argyris (1957), Arnspriger (1961), Buhler (1951), Combs and Super (1957), Erikson (1956), Fromm (1947), Gruenberg (1953), Hendrick (1942), Horney (1950), Jourard (1958), May (1950), Murphy (1958).

9. A positive discrepancy, i. e., where P perceives himself to be performing at a level beyond his skill level (e.g., over-achievers), we have called role overload; but this concept will not be discussed here.

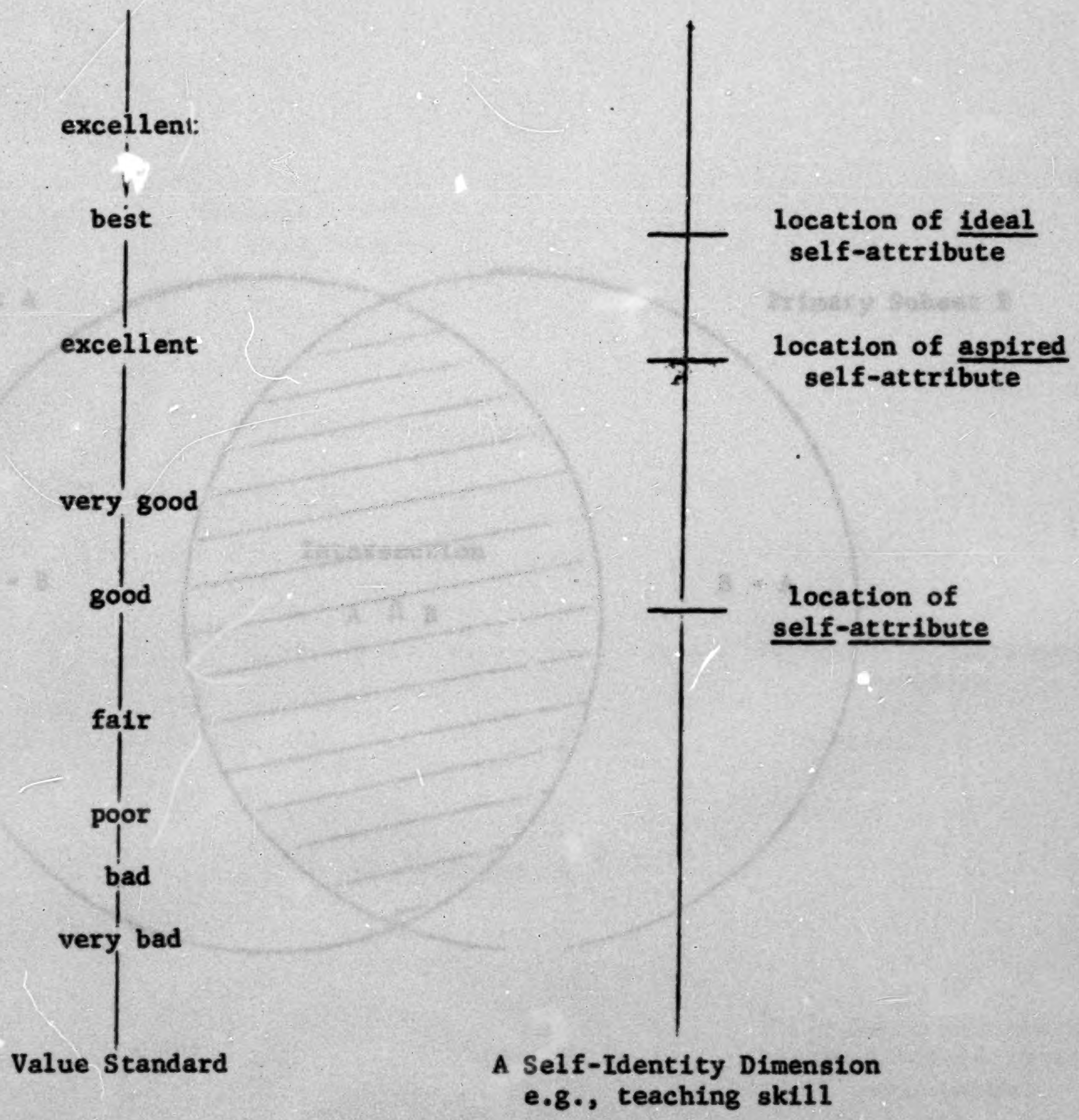
excellent
best
excellent
very good
good
fair
poor
bad
very bad
Value Standard
location of ideal self-attribute
location of aspired self-attribute
location of self-attribute
A Self-Identity Dimension e.g., teaching skill

Fig. 1. A self-identity dimension, e.g., teaching ability. This is a graphic representation of the relations between a value standard and an identity dimension, and the relations between the self-attribute, aspired self-attribute, and ideal self-attribute.

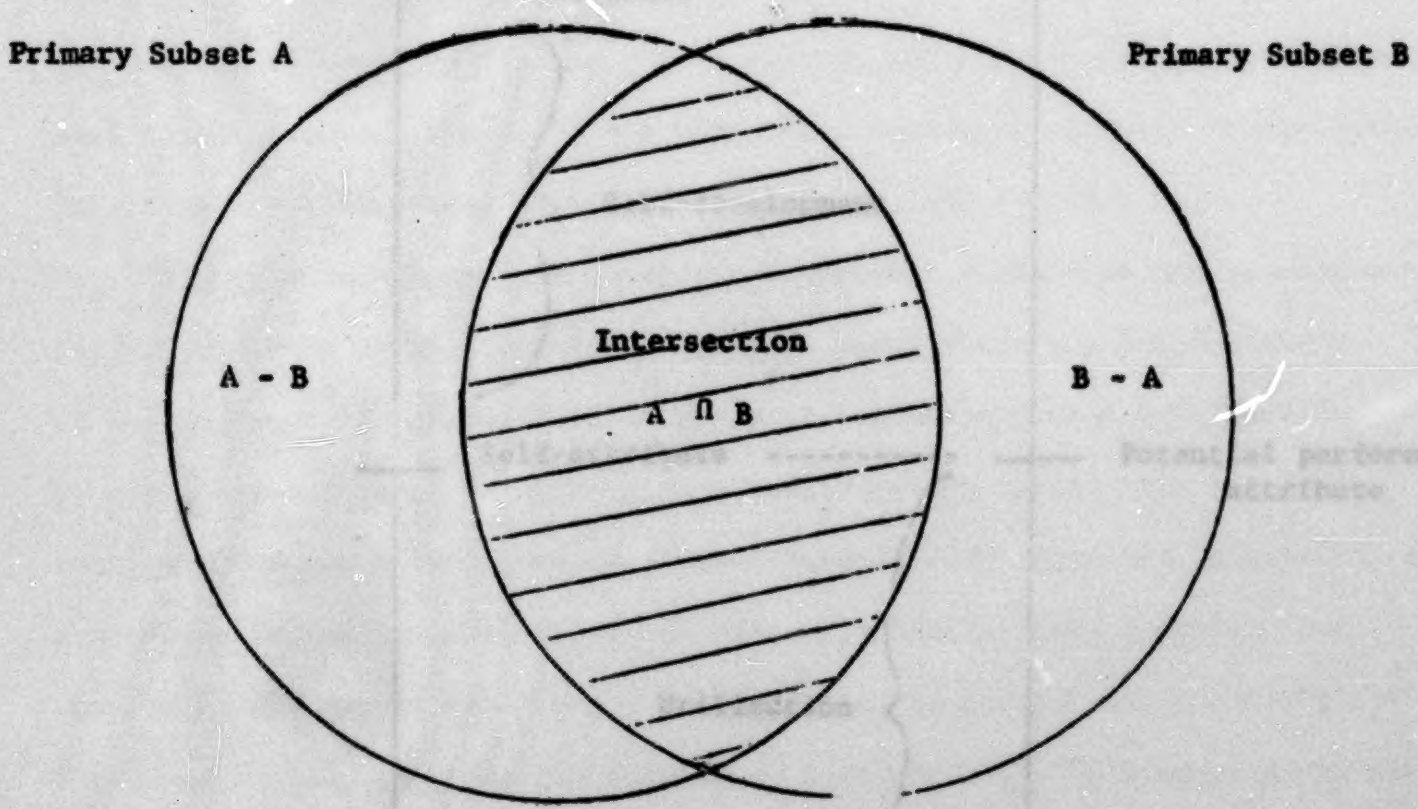
Primary Subset A
Primary Subset B
A - B
Intersection
A ∩ B
B - A

Fig. 2. A graphic representation of two intersecting primary subsets, A and B. The larger the intersection of A and B, the lower the probability that an element of A will be in A - B; but regardless of the size of A ∩ B, an element of A has a zero probability of being in B - A, i.e., in B but not in A.

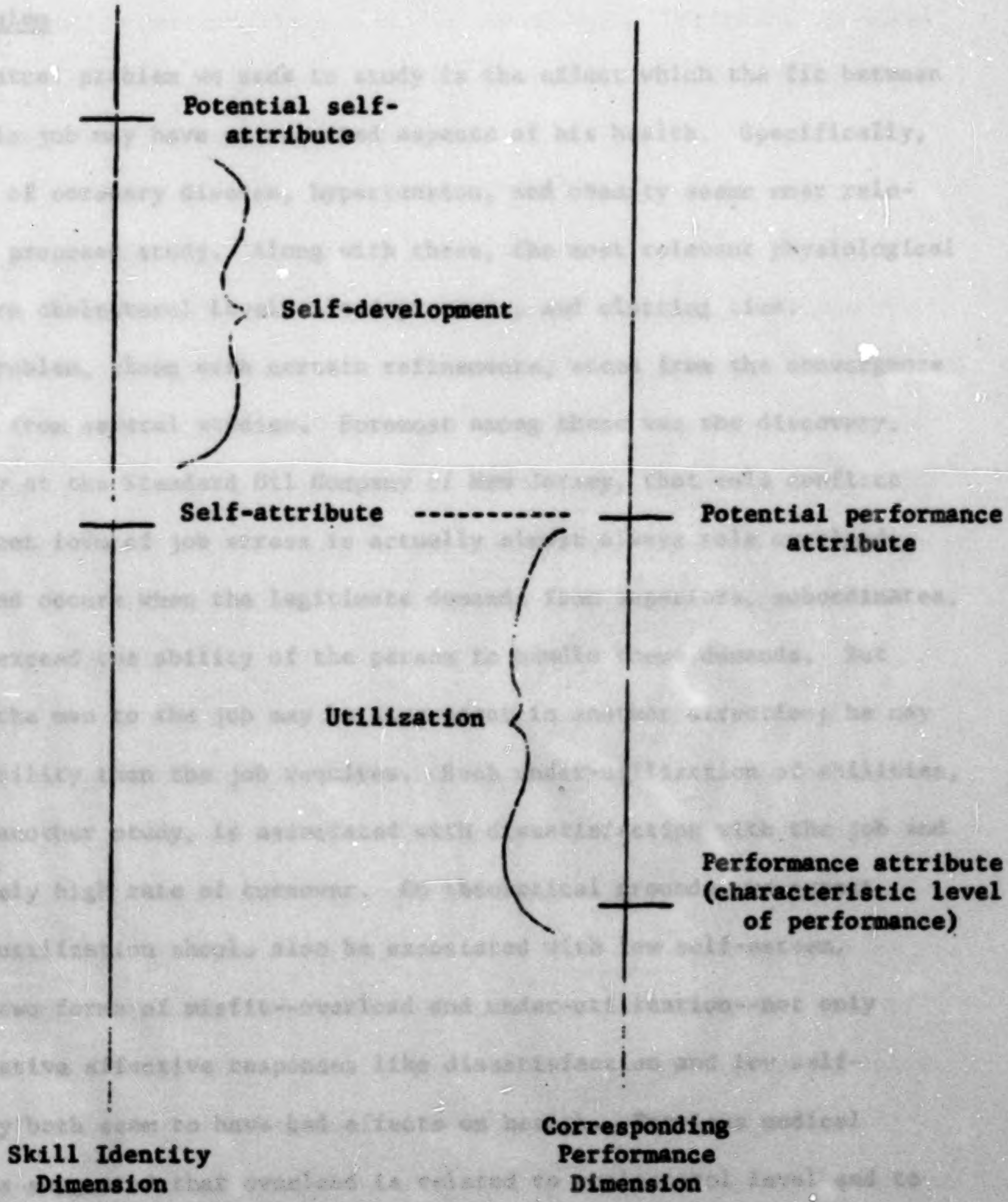
Potential self-attribute
Self-development
Self-attribute
Potential performance attribute
Utilization
Performance attribute (characteristic level of performance)
Skill Identity Dimension
Corresponding Performance Dimension

Fig. 3. A skill identity dimension and its corresponding performance dimension which graphically represent the definitions of the self-actualization concept as self-development and utilization. Each dimension is also assumed to have an associated value standard which provides criteria for the evaluation of self-attributes, but these are not pictured here.

Proposed Research at the Standard Oil Company of New Jersey

I. The Problem

The central problem we seek to study is the effect which the fit between a man and his job may have on selected aspects of his health. Specifically, the cluster of coronary disease, hypertension, and obesity seems most relevant to our proposed study. Along with these, the most relevant physiological variables are cholesterol level, blood pressure, and clotting time.

This problem, along with certain refinements, stems from the convergence of findings from several studies. Foremost among these was the discovery, in our study at the Standard Oil Company of New Jersey, that role conflict as a prevalent form of job stress is actually almost always role overload. Role overload occurs when the legitimate demands from superiors, subordinates, and others exceed the ability of the person to handle these demands. But the fit of the man to the job may be discrepant in another direction; he may have more ability than the job requires. Such under-utilization of abilities, we find in another study, is associated with dissatisfaction with the job and an excessively high rate of turnover. On theoretical grounds, we expect that under-utilization should also be associated with low self-esteem.

These two forms of misfit--overload and under-utilization--not only produce negative affective responses like dissatisfaction and low self-esteem; they both seem to have bad effects on health. Previous medical research has suggested that overload is related to cholesterol level and to cardiovascular disease. Our own research has shown that self-esteem is related to visits to the medical dispensary in a company. Thus we expect misfit to affect health via the mediation of certain affective and physiological responses.

Finally, several past studies indicate that the effects of the job environment on both affective responses and on health will vary depending on the personality characteristics of the individual. Therefore, we shall include a few variables like need for achievement and rigidity which are known to condition the effects of overload.

II Major Hypotheses

Figure 1 represents, in a simplified manner, the major variables which we propose to study. The heavy arrows, going from cause to effect, indicate our major hypotheses, and the lighter arrows, some of our secondary hypotheses. An arrow going to another arrow, rather than to a variable, indicates a conditioning effect. Let us now discuss these hypotheses in greater detail. A later section gives some particulars about the measurement of our major variables.

The first two major hypotheses relate perceived fit of the man to the job to physiological responses and these latter to our selected indicators of health. The perceived fit of the man to his job is conceived to be optimal when his self-description just matches his description of his job. When his perceived abilities are greater than the job requires, then he is under-utilized; and when these abilities are less than required, then he is overloaded. We may also think of the fit in terms of the use of time: under-utilization is an allocation of time to the various activities of the job which is different from the desired allocation to actual or potential activities; and quantitative overload occurs when the time required to perform all the activities of the job is greater than the time available.

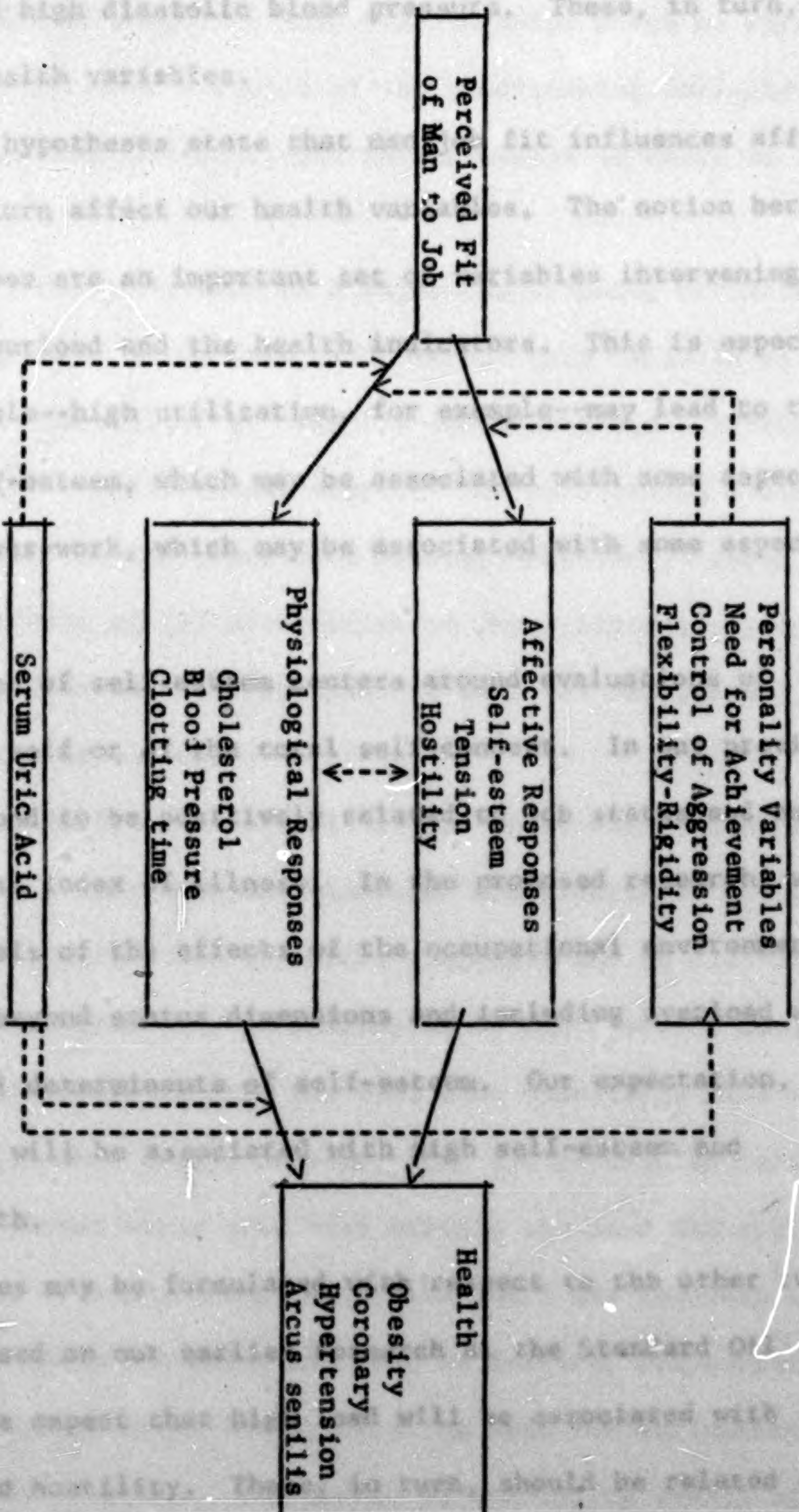
Perceived Fit of Man to Job
Personality Variables
Need for Achievement
Control of Aggression
Flexibility-Rigidity
Affective Responses
Self-esteem
Tension
Hostility
Physiological Responses
Cholesterol
Blood Pressure
Clotting time
Serum Uric Acid
Health
Obesity
Coronary
Hypertension
Arcus senilis

Figure 1. A Schematic Representation of the Major Variables and Hypotheses

Our expectation, then, is that high overload will be associated with high levels of cholesterol and high diastolic blood pressure. These, in turn, will be related to our four health variables.

The other two major hypotheses state that man-job fit influences affective responses which in turn affect our health variables. The notion here is that affective responses are an important set of variables intervening between utilization or overload and the health indicators. This is especially true when the same variable--high utilization, for example--may lead to two conditions: a) high self-esteem, which may be associated with some aspects of good health; and b) over-work, which may be associated with some aspects of poor health.

Our conceptualization of self-esteem centers around evaluations of single attributes of the self or of the total self-concept. In our previous work, self-esteem was found to be positively related to job status and negatively related to a global index of illness. In the proposed research, we want to deepen the analysis of the effects of the occupational environment on self-esteem by going beyond status dimensions and including overload and utilization as additional determinants of self-esteem. Our expectation, then, is that high utilization will be associated with high self-esteem and indications of good health.

Additional hypotheses may be formulated with respect to the other two affective responses. Based on our earlier research at the Standard Oil Company of New Jersey, we expect that high load will be associated with high reported tension and hostility. These, in turn, should be related to poor health, either directly or via their effects on the physiological responses.

It is apparent that the hypotheses stated above are not adequate to express the full complexity of empirical interrelationships which we expect to encounter. Let us now consider a couple of the conditioning variables as an illustration of the numerous additional relationships in which we will be interested.

We propose to treat serum uric acid as a major conditioning variable. In our tentative thinking about serum uric acid, we see this variable as reflecting one or more of the following: (1) the characteristic activity level of an individual; (2) a differential capacity for maintaining a certain activity level; (3) a drive (in the sense of a driving ambition). Serum uric acid may condition the effects of (a) utilization on physiological responses; (b) perceived overload on over-work (hours spent on work vs. recreation); (c) physiological responses on health.

Another interesting conditioning variable is the individual's need for achievement. Differences on this need may condition the effects of utilization and overload on physiological and affective responses and on over-work. Moreover, the need for achievement may be influenced by the level of serum uric acid. This hypothesis could explain the fact that executives have high levels of serum uric acid. This study, however, will not be able to rule out the alternative hypothesis that serum uric acid affects the need for achievement. This need is viewed as a psychological motive which has approach and avoidance aspects to it--hope for success and fear of failure, respectively. There is a good deal of psychological theory relating need for achievement to aspirations, persistence at a task, and choice of difficulty levels of tasks, which are all relevant variables in the proposed research. It is also possible that fear of failure may be significantly related to another personality predisposition, tendency toward self-induced overload ("work addiction").

In figure 1, two other personality predispositions are listed as conditioning variables: control of aggression and flexibility-rigidity. While space does not permit a detailed indication of how they fit in with the other hypotheses and what their theoretical significance is, we might at least briefly suggest why they are of interest. In our previous work with control of aggression, we have found this to be an important variable in the study of illness behavior, including dispensary visits and illness absences, and of specific pathologies, such as obesity and hypertension. Moreover, some of the recent medical research on cholesterol and on coronary disease is beginning to implicate a personality constellation in which control of aggression appears to be an important variable. Flexibility-rigidity has been found, in past research on overload at Standard Oil of New Jersey, to be an important trait which may condition the ways in which an individual deals with role overload and resulting tensions. The relevance of a tendency toward self-induced overload ("work addiction") is self-evident in the proposed research. The question, rather, is: Can it be measured, and how is it related to our other variables?

There are certain exploratory questions in which we are interested. These questions deal chiefly with the effects of certain background conditions (e.g. birth order and parental discipline) on our intervening and dependent variables. This part of the study can, of course, be easily omitted.

Finally, there is a set of variables which should be included primarily as controls. Some of these will be controlled completely or partially by the selection of subjects, for example, sex age, and job content (white collar only). Other control variables must be measured. For example, we should measure certain other factors affecting health such as smoking, eating, and exercise. We must also get information on whether a man responds to perceived overload by over-work, either by longer hours on the job or by taking work home (perhaps with fewer hours of sleep or recreation) or whether he seeks other solutions which do not over-work him. On the basis of previous research, we know that the test of our hypotheses about the effects of man-job fit on affective and physiological responses must be controlled for job status.

III. Measurement

A. Medical Variables: The details of measuring the medical variables are to be worked out in conjunction with the Medical Department of SONJ. Should blood samples be collected, then they would be analyzed for serum uric acid and cholesterol (possibly also for pepsinogen and latex fixation). This analysis, if done in our Ann Arbor laboratory, would use the standard procedures, outlined in Section 1 of the Appendix.

Another issue about which we still need to reach agreement is the possibility of repeated measurements. Such data would be especially useful with respect to biochemical variables, affective responses, and blood pressure. Repeated measurements would allow one to establish the temporal stability of the measure in question. Aside from this methodological contribution, changes over time could also be studied in their own right,and proportion of time in episode models could be used in the analysis.

It is also assumed that the questionnaire which the Medical Department has been using could be utilized as a source of information on smoking, eating, exercise, hours spent on job, hours of sleep, etc. There is some advantage to replicating the use of these measures exactly rather than devising similar new ones.

B. Questionnaire Data: The remaining necessary information would be obtained from a specially designed questionnaire which would include the following sections:

(1) Personal data and personal and occupational history data. The content of this is flexible. See section 2 of the Appendix.

(2) Measuring the perceived fit of the man to his job. There are two ways of measuring this. The first way secures separate job descriptions and self descriptions and matches these two sets of data. The data on job description would include job activities, load demands, and especially the required levels of skill and ability on several dimensions. On these same dimensions we would also get the man's perception of his own level of skill and ability. Discrepancies, in either direction, between required and possessed ability could then be calculated.

The second method obtains a direct, global (summary) index of utilization and overload, based perhaps only on two well-structured questions. In this approach, to be sure, one would have to provide adequate definitions of the stimulus words, "utilization" and "overload." See Section 3 of the Appendix for some possible instruments already available.

(3) Measuring self-esteem. We have had some success with the measurement of self-esteem, though defensiveness still remains a problem. Our measure derives from the theoretical notion of composite (average) evaluation of the self on a number of dimensions. See Section 4 of Appendix for further details.

(4) The measurement of hostility and of control of hostility. Here we intend to use indices which have yielded consistent and interesting empirical relationships with illness behavior and some illnesses, though we are unsure just what the scales measure. Another problem is to develop a hostility

(irritability) scale which will be sensitive to environmental variations rather than reflecting predominantly a stable personality characteristic. See Section 5 of Appendix for some ideas on these measurement issues.

(5) In measuring tension, we would rely on an already available instrument--most likely the index previously used in the overload research of SONJ. See Section 6 of Appendix.

(6) The measurement of need for achievement would be accomplished with the so-called Achievement Risk Preference Scale (Business Form). This test has been found useful not only in measuring the need for achievement (more precisely, the relative strength of hope of success over fear of failure), but also in using it as a partial indicator of defensiveness in responding to our measure of self-esteem.

(7) Flexibility-rigidity will be measured with the scale which forms a part of the California Personality Inventory. Validity information on this scale is therefore available, and its usefulness has been demonstrated in the overload study at SONJ.

(8) Tendency toward self-imposed overload ("work addiction"). No present scale exists for measuring this variable. A search of the literature, however, has suggested the kind of questions that would have to be asked to get at this phenomenon (e.g. about the habit of not taking one's full vacation).

IV. The Design

The present understanding is that the medical and questionnaire information would be collected as part of a regular medical examination. Such an examination might be modified in necessary ways to insure at least a standardized procedure. Other modifications are open. The subjects would be male employees coming for such a physical. Some selection of subjects would be instituted; for example, we might study only white males over 45 coming from middle and upper management jobs. The number of subjects and the defining criteria for selecting them are still open. Samples of blood would be collected as part of the medical examination.

A Proposal to the Michigan Bell Telephone Company for a Further Study of Work and Health

The results of our first study on the effect of occupational status on physical and mental health (Kasl and French, 1962) showed that better health was associated with higher status. This relationship, however, appeared to be curiously altered at the level of first line supervision. Here it was found that foremen had far more recorded visits to the medical department than did high status workers. One possible interpretation of this finding assumes that the stress of supervisory responsibility was the cause of the visits. Since other factors, such as bringing in an injured worker, could account for more frequent visits, a follow-up prospective study with a sample of supervisors who are not self-selected seems desirable.

Subsequent to the study cited above, our interest was aroused by the discovery, made here at the Institute for Social Research, that role overload is a prevalent form of stress on the job. Role overload occurs when legitimate demands from superiors and subordinates exceed the capacity of the person to handle these demands. We realized that role overload includes bearing more supervisory responsibility than the man can handle. But the fit of the man to the job may also be discrepant in the other direction; he has more ability than the job requires. Thus under-utilization of abilities and overload may be viewed as opposite ends of the same variable. This variable is important both for health and for effective management development and the utilization of managerial talent.

In the original study by Kasl and French (1962) the state of a person's health was measured by the number of diagnosed illnesses on visits to the medical department. But this measure reflects two factors, [illegible] there is need for a refinement, namely for the distinction between health behavior or tendency to visit the medical department and actual health as assessed by a doctor's examination.

A third line of investigation which has gained momentum since the end of the last study is the investigation of certain physiological variables. Prominent among these is a person's serum uric acid level, a variable which Cobb has shown to be related to the amount of activities undertaken and to managerial success in a company.

We are confident that a study pursuing these three related topics (overload and under-utilization, health and health behavior, serum uric acid) will not only further our understanding of the problems of health in industry but will also have practical implications for the company. We will now discuss each objective in greater detail and point out some of the practical implications.

I. Overload and Under-utilization as a Factor in Health

Our main interest lies in the investigation of the relationship between a man's fit to the job and the state of his health. We hypothesize that optimum health and performance will occur with optimum fit and that either overload or under-utilization can have bad effects on health. In addition, knowledge of the degree of fit existing in lower management should have applications to such problems of management development as selection, training, promotion, and the appraisal system. For example, we have found in previous studies that under-utilization of abilities is related to low job satisfaction and poor morale. A recent study of an appraisal system showed that there was lower utilization among college men than among non-college men; and there was an extremely high rate of turnover among these best-trained managers.

II. Health and Health Behavior

For any company the degree of absenteeism of its employees is a problem of practical importance. However, studies of absenteeism face the difficulty of obtaining reliable data on the number of absences, especially in the managerial ranks of a company. Visits to the medical department are among the most reliable data available, although, of course, they cover only part of the absences. We intend to relate a person's visits to the dispensary to his actual state of health as assessed by a doctor. On the basis of previous work in industrial medicine, we expect a discrepancy to exist in many cases between health behavior and health. This discrepancy, or an index developed on the basis of it, can be used as an indication of absenteeism determined by other factors than health. In this study we intend to link absences because of visits to the medical department to such variables as overload and under-utilization, which we believe are important in this connection.

III. Physiological Processes and Environmental Factors

According to our present day knowledge, serum uric acid level seems to be a genetically determined factor related to a person's activity level. In previous work a high serum uric acid level was found in the more active ones among a group of high-school students, and in men in executive positions. The evidence thus far is by no means conclusive, and we do not yet have a clear picture of the working of this factor, but it seems by no means impossible that systematic investigation of this serum uric acid level may lead to results which enable us to use a person's serum uric acid level as a partial predictor of his potential as an executive. While the work of this present study would not reach this possible goal, the results may very well make it possible to achieve the goal in the future.

IV. Research Design

For the investigation of the problems discussed above, we propose the following research design: We want to select a sample of about 120 men in lower managerial positions according to two selection criteria, supervisory responsibility and health behavior (as measured by the number of visits to the medical department). Through the help of the personnel department, we have received a list of ratings of the various lower management positions with respect to the amount of responsibility involved in the job. Thus we will study four groups of 30 men each as follows:

		Health Behavior	
		High number of visits	Low number of visits
Supervisory Responsibility	High	30	30
	Low	30	30

To measure our variables, we intend to develop a questionnaire and a few short paper and pencil tests. The questionnaire would be a simplified version of the one Kasl and French used in the earlier study. Two administrations seem preferable; these could be either by mail or by individual administration. All of the medical data could be collected in a standardized examination in the medical department, but the analysis of blood samples would be done in the laboratory of the University of Michigan. This analysis and the other work performed by the University would be financed by the University of Michigan.

Attached to this short proposal is a technical working paper on the theoretical and conceptual bases of the study. This paper also sets forth our specific hypotheses.

A Proposal for a Study of
MANPOWER DEVELOPMENT TRAINING ACT TRAINEES

OBJECTIVES

This is a proposal for a research project to be undertaken by the Institute for Social Research for the Office of Manpower Training of the Department of Health, Education and Welfare. The broad objective of the research is to help in the evaluation of the training programs instituted under the Manpower Development Training Act of 1962. The research proposed here will focus on an evaluation of the program from the point of view of the trainees--their background and attitudinal and motivational characteristics, their previous job history, their expectations of the program, their perceptions of and attitudes toward the training they receive, and the relation of all these factors to the successful utilization of the training in their post-program job history. It is recognized that the evaluation of a program and decisions about continuations and improvements involve considerations in addition to those which can be studied in the proposed research. However, a study of the trainees represents an essential aspect of any over-all evaluation and should provide information and data crucial to any long-range decisions made with respect to the training program.

There are two broad sets of dimensions on which a training program may be evaluated, and both will be investigated in this proposed research. One set refers to the adequacy of the technical training provided, the extent to which the program does in fact impart new skills to the trainees. The other set refers to attitudinal and motivational dimensions, the extent to which the program succeeds in creating a motivational and attitudinal transformation (and/or in tapping pre-existing attitudes and motivations) that enables a trainee to utilize effectively the skills he has learned. These attitudinal and motivational factors should be particularly important among the trainees in this program. We might expect that these programs will have to deal with problems of apathy, frustration, demoralization, and dropping out of the program. And even trainees of relatively high motivation and morale will be faced with problems of re-evaluation of the self, of integrating new skills and a new occupational identity into a new self-concept. A major objective of the research, then, will be to evaluate the success with which the program helps the trainees cope with these problems, and to explore some of the factors and conditions relating to success and failure in this area.

The proposed research represents a continuation of several lines of inquiry that have been developing at the Institute for Social Research over the past several years. Two of particular relevance should be noted: a series of studies on unemployment and labor-mobility conducted by the Economic Behavior Program of the Institute under the direction of Drs. George Katona and John B. Lansing; and two programs of studies, directed by Drs. Theodore Newcomb, Gerald Gurin, and J. R. P. French, Jr., that have focused on problems of identity formation and change, with special emphasis on changes resulting from educational and training programs. Among the latter, the program directed by Dr. French has particular relevance for the proposed research: It has been especially concerned with questions of self-actualization and utilization of skills, the integration of skills in the occupational self-concept, and the implications of self-actualization, skill utilization, and occupational self-concept for self-esteem, adjustment, and effective handling of the occupational role. This previous work done at the Institute should aid in the formulation of the problems for this research, and also place its contributions within broader theoretical and problem contexts.

SPECIFIC AREAS OF RESEARCH

The specific areas to be explored under the proposed research may be noted under two headings: the categories of variables that will be investigated; and the major lines of data-analysis that will be undertaken in attempting to meet the primary objectives of the research.

Categories of Variables

Data will be gathered on five broad classes of variables: (1) trainees' background characteristics; (2) attitudinal and mativational characteristics of trainees at the time of entering the training program; (3) characteristics of the training program and reactions of the trainees to the program; (4) attitudinal and motivational characteristics of trainees at the time of completion of the program; (5) characteristics of trainees' post-program history. A complete specification of the particular variables that will be explored within these broad categories will be developed in cooperation with the Office of Manpower Training. The following should be viewed as examples of what the major lines of inquiry will be, not as a complete listing of the data to be gathered in the proposed research.

1. Trainees' Background Characteristics

Demographic characteristics: age, sex, formal education, marital and family status, occupational and educational background of father, etc.

State of residence; history of residential and geographic mobility (particularly mobility or lack of mobility as a response to unemployment).

Labor force experience: job history, duration of unemployment, previous skills and occupations.

Ability: trainee GABT scores.

2. Attitudinal and Motivational Characteristics at Time of Enrollment

Attitudes toward program: expectations of what program will offer; cynicism-optimism with respect to the program; attitudes toward job for which training is being offered; perceptions of post-program job opportunities; motivations for training, etc.

Broader attitudinal and motivational characteristics: the major attempt here will be to tap some of the more general trainee attitudes and motivations that provide the context within which his more specific attitudes toward the program are imbedded. Two areas are of particular interest: (a) the trainees' reactions to unemployment and the inability to utilize old skills--the degree of self-blame, cynicism, demoralization, the effects on self-concept and self-esteem; and (b) the importance to the trainee of his previous skills, their centrality to the self, the extent to which the new skills are seen as superior or inferior in terms of self-evaluation and self-esteem.

3. Characteristics of Training Program and Reactions of Trainees to the Program

Trainees' reactions to program: satisfaction with teaching method, approaches and procedures; trainees' perceptions of relevance of instruction to work experience; satisfaction with adequacy and relevance of instructional materials and equipment; satisfaction with physical facilities; dropout during program and reasons for dropout.

Objective characteristics of program: for the specification of the particular variables that are important to investigate within this area, we will rely heavily on consultation with the Office of Manpower Training. (The data on program characteristics will be obtained from official records of the program as well as from questionnaires.)

4. Attitudinal and Motivational Characteristics at Completion of Program

Attitudes toward program: wherever relevant, variables within this sub-category will parallel those investigated at time of entrance, as noted above in the comparable sub-category under Category 2--"Attitudinal and Motivational Characteristics at Time of Enrollment." Examples of such parallel variables are: perceptions of what the program offered; cynicism-optimism with respect to the program; attitudes toward job for which training was offered; perceptions of post-program job opportunities. Where relevant, the same question asked at the time of enrollment will be repeated; in other instances a parallel form of a question will be used (e.g., questions phrased retrospectively rather than in terms of expectations.)

Broader attitudinal and motivational characteristics: here again, the major focus will be on repetitions and parallels of questions asked under the comparable sub-category at the time of enrollment. These will include questions of general morale, self-concept and self-esteem, attitudes toward the new skills and their integration in the self-concept.

Changes between pre-program and post-program attitudes: the use of identical and parallel questions, gathered on the same subjects at the time of enrollment and at the completion of the program, provides data on the degree of individual change in attitudes toward the program and in broader attitudinal and motivational characteristics. Such changes provide important evidence of the program's impact on the individual, and will constitute a major set of variables in the analysis of the data. As noted below, when parallel data are again obtained at a third and later time, we will study changes from pre-program attitudes to attitudes prevailing after there has been time for the effectiveness and usefulness of the program to be observed.

5. Characteristics of Trainees' Post-Program History

Post-program job history: relevance of post-program job(s) to training received; effectiveness of job performance. These variables constitute the major evaluative criteria of the training program.

Post-program attitudinal and motivational characteristics: attitudes toward program from the perspective of post-program job experience (satisfaction with training received, perception of adequacy of training, perceived relevance of training for post-program job(s), positive and negative aspects of training program); job satisfaction and other indices of adjustment in post-program job(s); general morale and self-esteem. These attitudinal variables may also be viewed as evaluative criteria of the training program. They are particularly relevant for evaluation in those instances where attitudes in this post-program period are probed in questions paralleling those asked of the trainees at the point of entering the program. As noted above, the use of identical and parallel questions will provide measures of individual change, and such changes may be viewed as important criteria for evaluation.

Major Lines of Data Analysis

The major line of data analysis will involve relating variables under Category 5 above, to the variables listed under Categories 1, 2, and 3. That is, the primary concern will be to relate such evaluative criteria as effectiveness on the job in the post-program period, positive attitudes toward the training program, and increase in overall self-esteem, to the trainee's background characteristics, his attitudes and motivations at the point of entering the program, and the characteristics of the program in which he was trained. This set of analyses will attempt to provide some answer to the primary question to which this research is addressed: What are the program characteristics and individual predisposing factors that lead to "success" of the program? It is anticipated that these analyses will become very complex, and that the interaction of many different factors will be examined. For example, in exploring the effectiveness of a given program characteristic, it is expected that the effects will vary for different types of trainees and under different types of conditions.

In addition to the primary analysis of factors related to evaluative criteria of program success, a number of other lines of analysis will be undertaken. One of primary interest involves relating *variables under* Category 1 (Trainees' Background Characteristics) to the other four classes of variables. These analyses will indicate how different sub-groups of the population (trainees of different age, occupational background and education, trainees in different states, etc.) differ in their attitudes at the time of enrollment, in their reactions to the training programs (including whether or not they drop out or continue), and in the attitudes, perceptions and competences with which they emerge from the program. Among the other possible analyses that might be undertaken, final selection will depend upon priorities determined in consultation with the Office of Manpower Training.

STUDY DESIGN

This proposal suggests a longitudinal study, with measurements obtained on a sample of trainees at three points in time: 1) at the beginning of the training program; 2) at the end of the program; and 3) at least six months after completion of training. Measurements at the beginning of the program will be designed to obtain data on the first two categories of variables outlined on pages 3 and 4 above--the trainees' background characteristics and their attitudinal and motivational characteristics at the time of enrollment. Measurements at the end of the program will be designed to obtain data on the third and fourth categories of variables outlined on pages 4 and 5 above--the reactions of the trainees to the program and their attitudinal and motivational characteristics at the time of completion. Measurements six months after the completion of training will be designed to obtain data relevant to the variables listed under the category "Characteristics of Trainees' Post-Program History," noted on page 5 above.

Measures

1. Self-administered questionnaires to a sample of trainees

The major measurement technique will be self-administered questionnaires given to a sample of 6,000 trainees at the three points of time indicated above. The first survey will be administered in the classroom on the first day of the training program. The second survey will be administered in the classroom on the last day of the training program. The third survey, approximately six months after completion of training, will be conducted by a mail questionnaire sent to the respondents' homes.

Each questionnaire will be designed so as to be completed by the trainee in approximately 20 minutes.

Special provisions will be made to obtain the second and third survey data from trainees who drop out before completion of the program, and the third survey data from trainees who do not respond to the mail questionnaire sent to their homes. These provisions are discussed in the section on "Drop-Outs and Non-Respondents" on page 10 below.

2. Department of Labor pre and post training data

Department of Labor data on the sample of 6,000 trainees will be collated with the information obtained from the three self-administered questionnaire surveys, and integrated into the analysis of the questionnaire data. The Department of Labor will provide data in such areas as trainee unemployment experience, trainee GABT scores, trainee labor force experience prior to training program, BES interviewer comments, trainee educational background and previous training experience, previous trainee occupational history, occupation for which trainees are being trained and DOT title, age, sex, city and state in which trainees are being trained, father's occupation, mobility experience, veterans' status, and industry for which trainee is being trained.

3. Social Security Administration data

As in the case of Department of Labor data, data from the Social Security Administration on the sample of 6,000 trainees will be collated with the other data on the trainees and integrated into the analysis. These include data such as age, sex, race, national origin, family status, place of work. In some cases these data will overlap with and serve as a check on data obtained in the questionnaires. In other cases, these will provide data that might be difficult to obtain in a self-administered questionnaire.

4. Self-administered questionnaires to supervisors of trainees in the post-program jobs

The trainees' effectiveness in their post-program jobs is probably the most crucial criterion of the success of the program. Valuable data relevant to this effectiveness will be obtained from the post-program job history and from the employees' questionnaires. But evaluations by people supervising the trainees on their jobs also represent critical data in this area. Although the research specifications for this particular study do not provide for extensive coverage of trainees' on-the-job supervisors, some information on a sample basis could improve the evaluative aspects of this study at a minimum additional cost.

The present proposal, therefore, includes provision for self-administered questionnaires to be given to 1,000 supervisors--the most relevant supervisors of a randomly selected 1,000 of the 6,000 trainees on whom the survey information and the Labor Department and Social Security data will be obtained. These questionnaires will be short (10 to 15 minutes) and will focus on the supervisor's rating of the trainee's performance in the post-training job.

Data from the supervisors will be integrated in the analysis with the other data obtained on these 1,000 trainees. In addition, these supervisors' ratings will provide some validating data which will help evaluate the self-administered questionnaire data from the third survey of all 6,000 trainees, not only the 1,000 trainees for whom the supervisory ratings will be obtained.

5. __Self-administered questionnaires to a sample of training group instructors__

Approximately 200 instructors will be sampled. This will include all of the instructors involved in training the 6,000 trainees who will receive the trainee questionnaires. The present proposal provides only for the collection of these data. The analysis of these data, particularly analyses involving relating the data from the instructors to the data from the particular trainees in their courses, represent an effort and cost beyond the scope of this particular study. However, the cost of gathering the instructor data is minimal, and its presence will make such analyses possible. Other sources of support will be sought for these analyses.

Sample

The basic sample, as has been indicated, will be 6,000 trainees. Since the final on-the-job data on these trainees cannot be obtained until more than a year after their initial entrance into the program, this sample cannot represent all of the trainees entering the program over the two-year period provided for in this study. Complete data can be obtained only on those trainees that enter the program towards the beginning of the two-year period. The sample of 6,000, then, will include all trainees who enter training programs that start between the fourth month of the study and whatever date is required to fill out the sample of 6,000. (The fourth month was chosen to allow for three months of planning and pretesting of instruments.) The sample will be further restricted to trainees who are in training programs expected to be offered 25 times or more during the course of the Act, enrolled in classes of 10 or more trainees, and in training programs scheduled for 20 weeks or more. These conditions have been selected to exclude small classes, rare and infrequent training programs, and short term courses.

In addition to this basic study sample, the first and second survey questionnaires, and relevant Labor Department and Social Security data, will be obtained on a random sample of 1,000 trainees chosen from those who enter the program during the thirteenth and fourteenth month of this proposed study. Although the two-year time limit of this study will not permit the gathering of post-training job data on these 1,000, we will have data of the first two stages of the study--their characteristics at the point of entering the program, and their characteristics and attitudes at the time of the program's completion (including such data as drop-outs from the program). Comparing these data with those from the sample of 6,000 will enable us to pick up any critical changes and trends that may occur between the first and second years of the study.

Drop-Outs and Non-Respondents

People who drop out before the completion of the training program will be followed up by mail questionnaires sent to their homes, supplemented by telephone reminders on a sample. Drop-outs will be asked the same set of questions asked in the second survey questionnaire of those who complete the program; in addition, drop-outs will be asked questions devoted specifically to probing the reasons for their dropping out.

People who do not respond to the third survey questionnaire (those sent to their homes six months after the training period) will be followed up with duplicate questionnaires and telephone reminders on a sample.

It is expected that these follow-up procedures will not be successful with all drop-outs and non-respondents. A random sample of each of these two groups will be contacted and given personal interviews in their homes. The present budget includes costs for approximately 300 such interviews.

RELATION TO FUTURE RESEARCH

The research outlined in this proposal is self-contained, designed to meet the objectives outlined. It is not expected, however, to emerge with all the answers, or even to ask all the crucial questions that are relevant to full understanding in this complex area of vocational rehabilitation. In some instances this research will provide insights and data that could profitably be more fully explored in later research. Support for such research will be sought from other agencies and foundations interested in the complex problems confronting the Office of Manpower Training. The interest and the commitment of the two principal investigators go beyond the limits of this immediate research, and involve the hope of contributing to a broad and programmatic approach to the problems involved in this area.

TIME SCHEDULE AND REPORTS

The project is scheduled for two years, and could begin immediately. The following reports would be delivered to the Office of Education:

1. Marginal tabulations and a preliminary report prepared one month after completion of the first phase of the study (the characteristics of the trainees at the point of entering the program).
2. Similar data and a preliminary report prepared one month after completion of the second phase of the study (the employees' attitudes and reactions upon completion of the training).
3. A final report containing a definitive analysis of the data, following the approach outlined in the discussion of "major lines of data analysis" on pages 5 and 6 above. This report will be delivered two years after the beginning of the study.

Memo to: Paul Buchanan

From: Jack French

Concerting: Our interest in training and organizational change

November 9, 1962

As you know, most of our recent research on human relations training has focused on changes produced in the individual, and we have paid less attention to the group and organizational levels of change. In this proposal we focus on the group level of change in the training group and its later application back in the organization. Variables at the group level describe group structures and group processes, but they also include interpersonal relationships. It is important to include both because some of the training groups to be studied will consist of pairs of persons with enduring interpersonal relationships on the job but will not be organizational families or other face-to-face organizational groups.

We are interested in studying four main group properties which we think can be applied to the training group (including the dyad within it) and to the organizational group back on the job (including the dyad within it). These four concepts, along with the rest of our conceptualization of groups and organizations, are defined in Volume 18, Number 3 of the *Journal of Social Issues*; so we shall only characterize them briefly here, but we will give page references to that issue. All four of these properties of the group--the norms, the role structure, the authority structure, and the interpersonal relations--can be defined in terms of common and shared properties of the individuals.

A. Group Norms. A group norm is defined as a value within individuals which is common and shared in the group (see pages 16, 17, 29). For example, the strength of a group norm concerning the expression of feelings is defined as the extent to which it is common in the group that individuals value this as a good thing to do and the extent to which it is shared in the sense that each individual knows that the other individuals value such behavior. A measure of the strength of the norm can thus be constructed from two sorts of data: (1) a measure of the individual's values concerning, for example, freedom to express feelings, (2) a measure of each individual's perception of the extent to which others share the same value. (See items 5a, 5b, 6a, 6b under Group Norms in the Appendix.) This measure may be applied to the dyad or to any larger sized group, and it may be applied both in the training group and back on the job. That norms are significantly related to organizational performance has been supported by recent unpublished research of Georgopoulos. Higher productivity is reported not only when there is agreement between superior behavior and subordinate norms but also when there is consensus among members concerning the norm itself. Some of the measures from this research are included in the Appendix.

In cases where we expect training to produce a quantitative shift but not a complete change in a norm, it may be desirable to use more exact measurements. Jay Jackson has provided a "return potential model" for such measurements (The Dynamics of Instructional Groups, Fifty-ninth Yearbook of the National Society for the Study of Education, Chapter VII, University of Chicago Press, 1960) and has applied it to the measurement of group norms in industry. The essence of a norm is the specification of the amount or degree of behavior that is proper or expected of a group member. Thus any dimension of behavior, such as degree of openness or frequency of talking in a group meeting, may become the content of a norm. Consider, for example, a norm about how frequently members should contribute during a one-hour meeting; the behavior dimension might run from zero to eight times (see Figure 1). The proper frequency of talking can be quantitatively specified by the mean degree of approval or disapproval shown by members for a person who contributes once, twice, three times, etc. per meeting. The entire norm, as graphed in Figure 1, shows that the group disapproves talking too little or too much, finds 4-7 times acceptable, but considers 6 times per meeting the best. This general method of measurement can be used for any behavior concerning which there are norms, even in a dyad, and also for role behaviors such as how a supervisor should treat a subordinate.

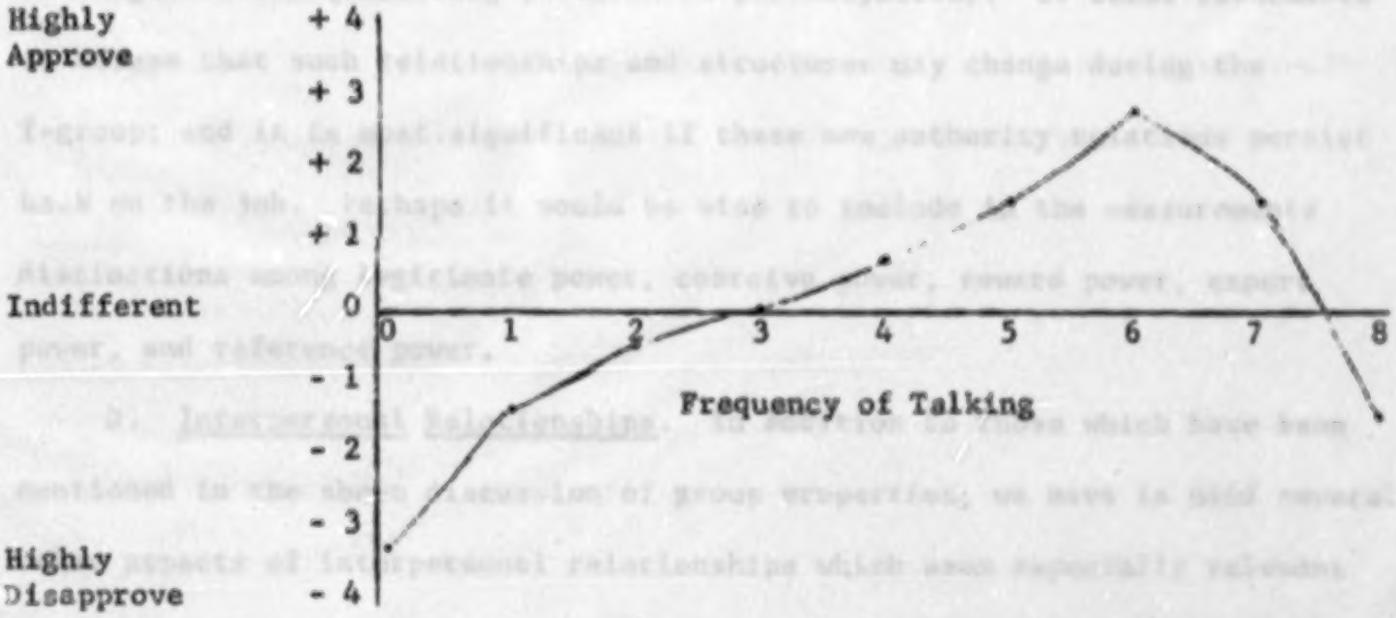

Figure 1. Diagram of a group norm about frequency of talking in a meeting.

B. The Role Structure of the Group. A role, like a norm, may be conceptualized as common and shared prescribed activities for the occupant of an office, (see pages 24, 25, 26). Of course, we will be just as much interested in the informal role structure of a group as we are in the formal division of labor. One relevant aspect of changes in the role structure of a training group would be changes in the prescribed roles of the members in the problem-solving process. We would also be interested in role conflict, adequacy of role understanding, and generalized role expectations (which are very close to norms). Note that the example in Appendix B from SONJ fits Jackson's return potential model.

C. The Authority Structure of the Group. We believe that T-group training in industry always deals with authority relationships existing in the organization (including patterns of participation). It seems reasonable to assume that such relationships and structures may change during the T-group; and it is most significant if these new authority relations persist back on the job. Perhaps it would be wise to include in the measurements distinctions among legitimate power, coercive power, reward power, expert power, and reference power.

D. Interpersonal Relationships. In addition to those which have been mentioned in the above discussion of group properties, we have in mind several other aspects of interpersonal relationships which seem especially relevant to T-group training and its possible effects back on the job. These include: trust, extent of self-exposure, openness, concern for others, supportiveness, independence and dependence, mutual understanding, perception of being valued, liking, competitive or cooperative, and several others.

E. Personal Attributes. Finally, we would be interested in securing a few measures of changes in certain aspects of self-identity--especially skills, sensitivities and abilities which are learned in T-groups--which we have studied in our previous research on T-groups. I will say nothing further about these because I am sure you are familiar from Sherwood's thesis and from the report on the General Motors study with both the content of the variables and the measuring instruments.

It seems to me that most of the variables discussed above are pretty closely related to your immediate interests. However, it may be easier for you to judge this after looking at the attached Appendix. In addition, you may find there other variables, not discussed above, which are of interest to you. Most of these have been measured in our previous research by means of questionnaire items, but a few came from interviews. Although most of these measures were crude and unvalidated, they were sufficiently successful to produce significant support for the hypotheses under study.